ORDER NO.DSD0301002C1

B13

Service Manual

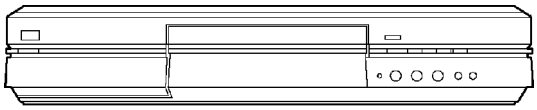
DVD Video Recorder

DMR-E50P / DMR-E50PC / DMR-E50PL

Colour

(K).....Black Type

(S).....Silver Type



SPECIFICATIONS

Specifications

Power supply:	AC120 V, 60 Hz
Power consumption:	26 W
Recording system:	DVD video recording standards (DVD-RAM), DVD video standards (DVD-R)
Optical pick-up:	System with 1 lens, 2 integration units (662 nm wavelength for DVDs, 790 nm wavelength for CDs)
Recordable discs:	12 cm 4.7 GB DVD-RAM discs 12 cm 9.4 GB DVD-RAM discs 8 cm 2.8 GB DVD-RAM discs 12 cm 4.7 GB DVD-R discs (for General Ver. 2.0) 8 cm 1.4 GB DVD-R discs (for General Ver. 2.0)
Recording time:	Max. 6 hours (using 4.7 GB disc) XP: 60 minutes SP: 120 minutes LP: 240 minutes EP: 360 minutes
Region number:	Region No.1

Discs played:	**12 cm 4.7 GB DVD-RAM discs** **12 cm 9.4 GB DVD-RAM discs** **8 cm 2.8 GB DVD-RAM discs** **12 cm 4.7 GB DVD-R discs (for General Ver. 2.0)** **8 cm 1.4 GB DVD-R discs (for General Ver. 2.0)** **DVD-VIDEOdiscs** **CD-Audio discs (CD-DA)** **Video CD discs** **CD-R/ CD-RW discs (CD-DA, Video CD, MP3 formatted discs)**
Video system	
TV system:	**NTSC system, 525 lines, 60 fields**
Recording system:	**MPEG2 (Hybrid VBR)**
Input:	**LINE (pin jack), 1.0 Vp-p; 75 Ω** **S connector** **Y: 1.0 Vp-p; 75 Ω** **C: 0.286 Vp-p; 75 Ω**
Output:	**LINE (pin jack), 1.0 Vp-p; 75 Ω** **S connector** **Y: 1.0 Vp-p; 75 Ω** **C: 0.286 Vp-p; 75 Ω**
Component video output (480p/ 480i):	**Y: 1.0 Vp-p; 75 Ω** **PB: 0.7 Vp-p; 75 Ω** **PR: 0.7 Vp-p; 75 Ω**
D-connector output:	**Not provided**
Antenna reception input:	**TV Channel: 2ch-69ch, 75 Ω** **CATV Channel: 1ch-125ch, 75 Ω**
RF converter output:	**Not provided**
Audio system	
Recording system:	**Dolby Digital (XP/SP/LP/EP)**
Input:	**LINE (pin jack)** **Reference input: 309 mVrms** **FS: 2 Vrms (1 kHz, 0 dB)** **Input impedance: 47 k Ω**
Output:	**LINE (pin jack)** **Reference output: 309 mVrms** **FS: 2 Vrms (1 kHz, 0 dB)** **Output impedance: 1 k Ω** **(Load impedance: 10 k Ω)**
Number of channels:	**Recording: 2 channels** **Playback: 2 channels**
Other input/output connectors:	**Digital audio optical output connector**

Dimensions:	**Approx. 430 (W)×79 (H)×283 (D) mm [Approx. 16 15/ 16"(W)×3 1/ 8" (H)×11 11/ 64" (D)] (excludingprotrusions)**
Mass:	**Approx. 3.7 kg (8.14 lbs)**
Operating temperature range:	**5°C-40°C (41°F-104°F)**
Operating humidity range:	**10%-80% RH (no condensation)**
Clock unit:	**Quartz-controlled 12-hour digital display**

LASER Specification

Class I LASER Product

Wave length:	**775-815 nm 655-666 nm**
Laser power:	**No hazardous radiation is emitted with the safety protection.**

Power consumption in standby mode:

approx. 3.2 W

Notes:

Mass and dimensions are approximate.

Specifications are subject to change without notice.

Notes:

The part of DVD RAM Drive (VXY1772) is listed separately.

Please refer to ORDER NO. RAM0301002C0.

⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public.
It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product.
Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

Panasonic

1. SAFETY PRECAUTIONS

1.1. GENERAL GUIDELINES

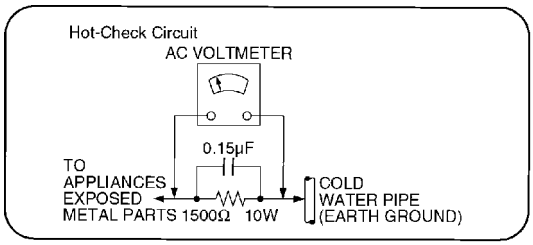
1. **When servicing, observe the original lead dress. If a short circuit is found, replace all parts which have been overheated or damaged by the short circuit.**
2. **After servicing, see to it that all the protective devices such as insulation barriers, insulation papers shields are properly installed.**
3. **After servicing, make the following leakage current checks to**

prevent the customer from being exposed to shock hazards.

1.1.1. LEAKAGE CURRENT COLD CHECK

1. **Unplug the AC cord and connect a jumper between the two prongs on the plug.**
2. **Measure the resistance value, with an ohmmeter, between the jumpered AC plug and each exposed metallic cabinet part on the equipment such as screwheads, connectors, control shafts, etc. When the exposed metallic part has a return path to thechassis, the reading should be between 1M Ω and 5.2M Ω . / When the exposed metal does not have a return path to the chassis, the reading must be ∞.**

Figure 1



1.1.2. LEAKAGE CURRENT HOT CHECK (See Figure 1 .)

1. **Plug the AC cord directly into the AC outlet. Do not use an isolation transformer for this check.**
2. **Connect a 1.5k Ω , 10 watts resistor, in parallel with a 0.15 µ F capacitors, between each exposed metallic part on the set and a good earth ground such as a water pipe, as shown in Figure 1.**
3. **Use an AC voltmeter, with 1000 ohms/volt or more sensitivity, to measure the potential across the resistor.**
4. **Check each exposed metallic part, and measure the voltage at each point.**
5. **Reverse the AC plug in the AC outlet and repeat each of the above measurements.**
6. **The potential at any point should not exceed 0.75 volts RMS. A leakage current tester (Simpson Model 229 or equivalent) may be used to make the hot checks, leakage current mu3st not exceed 1/ 2 milliamp. In case a measurement is outsideof the limits**

specified, there is a possibility of a shock hazard, and the equipment should be repaired and rechecked before it is returned to the customer.

2. PREVENTION OF ELECTRO STATIC DISCHARGE (ESD) TO ELECTROSTATICALLY SENSITIVE (ES) DEVICES

Some semiconductor (solid state) devices can be damaged easily by static electricity. Such components commonly are called Electrostatically Sensitive (ES) Devices. Examples of typical ES devices are integrated circuits and some field-effect transistorsand semiconductor "chip" components. The following techniques should be used to help reduce the incidence of component damage caused by electro static discharge (ESD).

1. **Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any ESD on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging ESD wrist strap, whichshould be removed for potential shock reasons prior to applying power to the unit under test.**
2. **After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as alminum foil, to prevent electrostatic charge buildup or exposure of the assembly.**
3. **Use only a grounded-tip soldering iron to solder or unsolder ES devices.**
4. **Use only an anti-static solder removal device. Some solder removal devices not classified as "anti-static (ESD protected)" can generate electrical charge sufficient to damage ES devices.**
5. **Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ES devices.**
6. **Do not remove a replacement ES device from its protective package until immediately before you are ready to install it. (Most replacement ES devices are packaged with leads electrically shorted together by conductive foam, alminum foil or comparableconductive material).**
7. **Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to**

the chassis or circuit assembly into which the device will be installed.

Caution

Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.

8. Minimize bodily motions when handling unpackaged replacement ES devices. (Otherwise hamless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity (ESD) sufficient todamage an ES device).

IMPORTANT SAFETY NOTICE

There are special components used in this equipment which are imporant for safety.
These parts are marked by ⚠ in the schematic diagrams, Exploded Views and replacement parts list. It is essential that these critical parts should be replaced with manufacturer's specified parts to prevent shock, fire, or other hazards. Do not modify the original design without permission of manufacturer.

3. Precaution of Laser Diode

CAUTION:

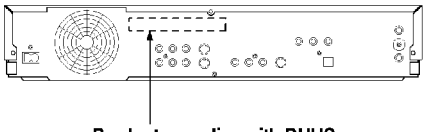
This product utilizes a laser diode with the unit turned "on", invisible laser radiation is emitted from the pickup lens.
Wave length: 775-815 nm/655-666 nm
Maximum output radiation power from pickup: 100 μ W/VDE
Laser radiation from the pickup lens is safety level,but be sure the followings:

1. Do not disassemble the optical pickup unit, since radiation from exposed laser diode is dangerous.
2. Do not adjust the variable resistor on the pickup unit. It was already adjusted.
3. Do not look at the focus lens using optical instruments.
4. Recommend not to look at pickup lens for a long time.

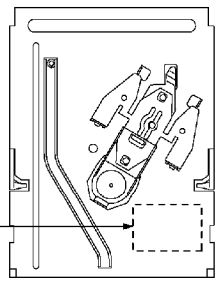
ACHTUNG:

Dieses Produkt enthält eine Laserdiode.
Im eingeschalteten Zustand wird unsichtbare Leserstrahlung von der Laserinheit adgestrahit.
Wellenlänge: 775-815 nm/655-666 nm
Maximale Strahlungsleistung der Lasereinheit: 100 μ W/VDE
Die Strahlungan der Lasereinheit ungefährlich, wenn folgende Punkte beachtet werden:

1. Die Lasereinheit nicht zerlegen, da die Strahlung an der freigelegten Laserdiode gefährlich ist.
2. Den werkseitig justierten Einstellregler der Lasereinhit nicht verstellen.
3. Nicht mit optischen Instrumenten in die Fokussierlines blicken.
4. Nicht über längere Zeit in die Fokussierlines blicken.



Product complies with DHHS Rules 21 CFR Subchapter J in effect at date of manufacture.
Matsushita Electric Industrial Co., Ltd.
Kadoma, Osaka, Japan



CAUTION!
THIS PRODUCT UTILIZES A LASER.
USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

4. How to replace the Lithium Battery

REPLACEMENT PROCEDURE

1. Remove the Top cover and DVD-RAM drive unit with Main P.C.B. by referring the Disassembling Procedure.

2. Unsolder the Lithium Batteries: B7501 and then replace it into new one.
(As shown in 15.2.1. The Main P.C.B.)

NOTE:
The lithium battery is a critical component. (Type No.: CR2032-1GUF Manufactured by Panasonic.)
It must never be subjected to excessive heat or discharge.
It must therefore only be fitted in equipment designed specifically for its use.
Replacement batteries must be of the same type and manufacture.
They must be fitted in the same manner and location as the original battery, with the correct polarity contacts observed.
Do not attempt to re-charge the old battery or re-use it for any other purpose.
It should be disposed of in waste products destined for burial rather than incineration.

(For English)

CAUTION
Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the equipment manufacturer. Discard used batteries according to manufacturer's instructions.

(For French)

PRECAUTION
Le fait de remplacer incorrectement la pile peut présenter des risques d'explosion. Remplacer la pile uniquement par une pile identique ou de type équivalent recommandée par le fabricant. Se débarrasser des piles usagées conformément aux instructions du fabricant.

5. Handling the Lead-free Solder

5.1. About lead free solder (PbF)

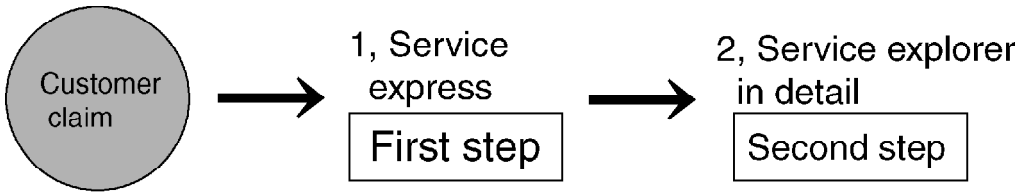
Distinction of PbF P.C.B.:
P.C.B.s (manufactured) using lead free solder will have a PbF stamp on the P.C.B.

Caution:

- Pb free solder has a higher melting point than standard solder; Typically the melting point is 50 - 70°F (30 - 40°C) higher. Please use a high temperature soldering iron. In case of the soldering iron with temperature control,please set it to 700 ± 20°F (370 ± 10°C).
- Pb free solder will tend to splash when heated too high (about 1100°F/600°C).
- When soldering or unsoldering, please completely remove all of the solder on the pins or solder area, and be sure to heat the soldering points with the Pb free solder until it melts enough.

6. Service Explorer

The Service Explorer provides information about all possible causes based on the symptoms and gives step by step instructions making parts. It consists of two parts, based on applications: the first is the "Service Explorer Express" andthe second is "Service Explorer in Detail".



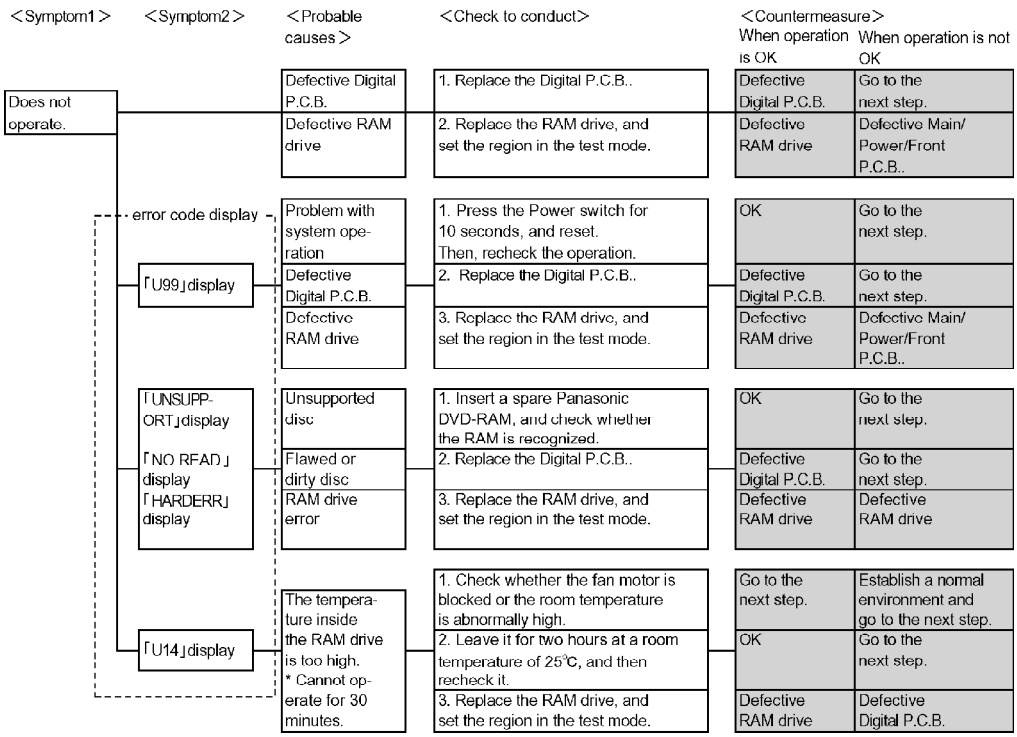
1. For details about the service / test modesetting mentioned in the description, refer to the "List of various modes".

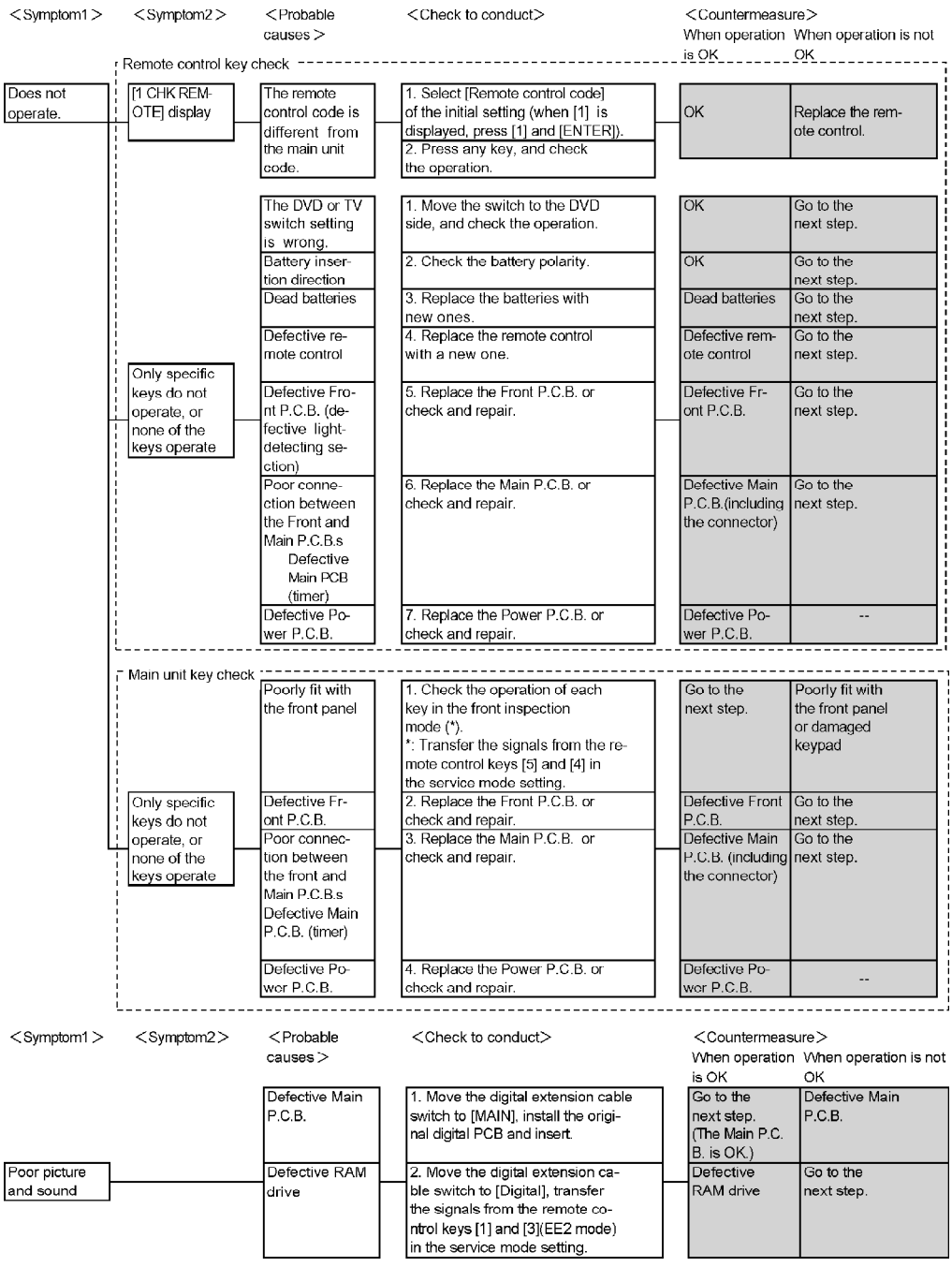
- Service mode setting: While the power is off, press TIME SLIP, STOP, and OPEN / CLOSE simultaneously for five seconds.
- Process mode 1 setting: While the power is off, press SKIP(R), TIME SLIP, and OPEN / CLOSE simultaneously for five seconds.

2. For disassembly and replacement procedures, refer to the "Assembling and Disassemling".

6.1. Service Explorer Express

The following steps allow you to check each block separately (Digital P.C.B., RAM drive, Main / Power Supply / Front P.C.B.).
Items needed: RAM drive, Digital P.C.B., Digital extension cable, Remote control.
Conditions: Nothing special.

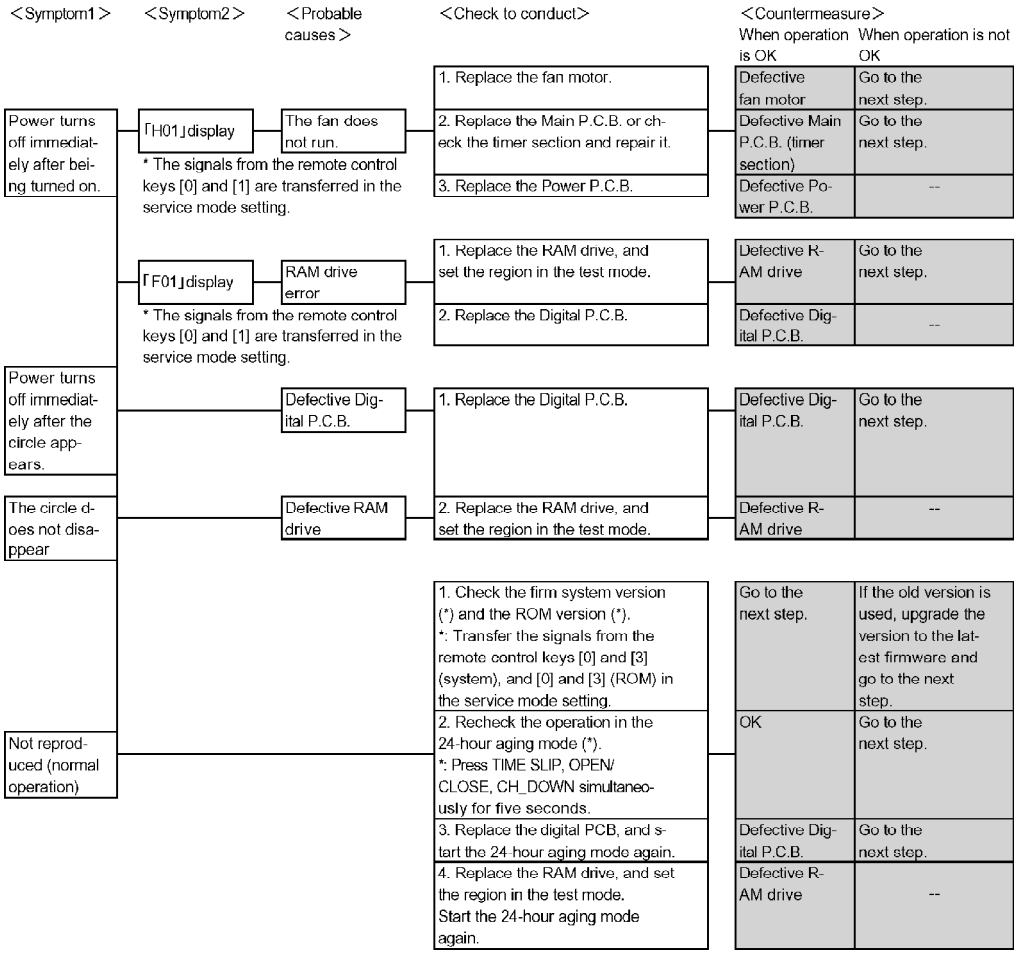

＜Symptom1＞
＜Symptom2＞
＜Probable causes＞
＜Check to conduct＞
＜Countermeasure＞
When operation is OK
When operation is not OK
Does not operate.
Defective Digital P.C.B.
1. Replace the Digital P.C.B..
Defective Digital P.C.B.
Go to the next step.
Defective RAM drive
2. Replace the RAM drive, and set the region in the test mode.
Defective RAM drive
Defective Main/ Power/Front P.C.B..
error code display
Problem with system operation
1. Press the Power switch for 10 seconds, and reset. Then, recheck the operation.
OK
Go to the next step.
「U99」display
Defective Digital P.C.B.
2. Replace the Digital P.C.B..
Defective Digital P.C.B.
Go to the next step.
Defective RAM drive
3. Replace the RAM drive, and set the region in the test mode.
Defective RAM drive
Defective Main/ Power/Front P.C.B..
「UNSUPPORT」display
「NO READ」display
「HARDERR」display
Unsupported disc
1. Insert a spare Panasonic DVD-RAM, and check whether the RAM is recognized.
OK
Go to the next step.
Flawed or dirty disc
2. Replace the Digital P.C.B..
Defective Digital P.C.B.
Go to the next step.
RAM drive error
3. Replace the RAM drive, and set the region in the test mode.
Defective RAM drive
Defective RAM drive
「U14」display
The temperature inside the RAM drive is too high.
* Cannot operate for 30 minutes.
1. Check whether the fan motor is blocked or the room temperature is abnormally high.
Go to the next step.
Establish a normal environment and go to the next step.
2. Leave it for two hours at a room temperature of 25°C, and then recheck it.
OK
Go to the next step.
3. Replace the RAM drive, and set the region in the test mode.
Defective RAM drive
Defective Digital P.C.B.



6.2. Service Explorer in Detail

6.2.1. Does not operate

items needed: RAM drive, digital P.C.B., remote control.
Conditions: Nothing special.



6.2.2. Poor Pictures

Items needed: RAM drive, Digital P.C.B., RF cable, AV cable.

Conditions: Check with TU IN-AV OUT(EE). When recording or playback is partially needed, follow the instructions.

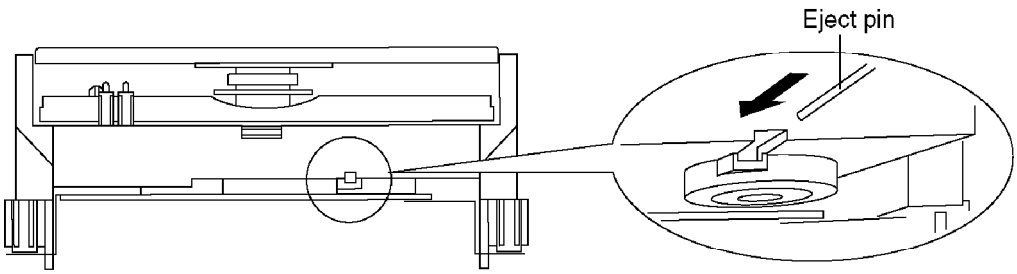
<Symptom1>	<Symptom2>	<Probable causes>	<Check to conduct>	<Countermeasure> When operation is OK	When operation is not OK
Noise in the picture and sound. No picture color.		The signal is too weak.	1.Confirm wheather connecting through VCR.	Go to the next step.	Connect to recorder directly
		The tuner signal reception is too weak.	2. Reconnect the RF cable to TV, and check the picture and sound.	Go to the next step.	Poor signal reception
		The RF cable is badly damaged.	3. Replace the RF cable, and check.	Defective RF cable	Go to the next step.
		The AV cable is badly damaged.	4. Replace the AV cable, and check.	Defective AV cable	Go to the next step.
		Defective Main P.C.B..	5. Move the digital extension cable switch to [MAIN], install the original digital PCB and insert.	Go to the next step. (The Main PCB is OK.)	Defective Main P.C.B.
		Defective Digital P.C.B..	6. Replace the Digital P.C.B..	Defective Digital P.C.B.	--
No picture or sound is output.		Defective RF cable	1. Replace the RF cable, and check.	Defective RF cable	Go to the next step.
		Defective AV cable	2. Replace the AV cable, and check.	Defective AV cable	Go to the next step.
		Defective Main P.C.B.	3. Move the digital extension cable switch to [MAIN], install the original digital PCB and insert.	Go to the next step. (The Main PCB is OK.)	Defective Main P.C.B.
		Defective Digital P.C.B..	4. Replace the Digital P.C.B..	Defective Digital P.C.B.	--
Picture and sound are not synchronized		Poor turner signal reception.	1. Select a different broadcast channel, and check.	Poor signal reception	Go to the next step.
		Defective Digital P.C.B..	2. Replace the Digital P.C.B..	Defective Digital P.C.B.	--

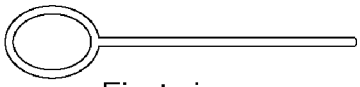
<Symptom1>	<Symptom2>	<Probable causes>	<Check to conduct>	<Countermeasure> When operation is OK	When operation is not OK
Block noise		Defective RAM drive and Digital P.C.B..	1. Replace the RAM drive, and set the region in the test mode.	(Auto recording and playback) Defective RAM drive	Go to the next step.
			2. Replace the Digital P.C.B..	(Auto recording and playback) Defective Digital P.C.B.	--
Not reproduced (normal operation)			1. Check the firm system version (*) and the ROM version (*). *: Transfer the signals from the remote control keys [0] and [3] (system), and [0] and [3] (ROM) in the service mode setting.	Go to the next step.	If the old version is used, upgrade the version to the latest firmware and go to the next step.
			2. Recheck the operation in the 24-hour aging mode (*). *: Press TIME SLIP, OPEN/CLOSE, CH_DOWN simultaneously for five seconds.	OK	Go to the next step.
			3. Replace the Digital PCB, and start the 24-hour aging mode again.	Defective Digital P.C.B.	Go to the next step.
			4. Replace the RAM drive, and set the region in the test mode. Start the 24-hour aging mode again.	Defective RAM drive	--

6.2.3. Other

Items needed: Digital P.C.B., HDD.
Conditions: Nothing special.

<Symptom1>	<Symptom2>	<Probable causes>	<Check to conduct>	<Countermeasure> When operation is OK	When operation is not OK
No media can be played.		Erasing the AV ID	1. Using the remote control, set the AV limit level to "8", and set the ID number to "0000". Or, when the tray is open, press SKIP(R) and SKIP(L) simultaneously for five seconds.	When the operation is normal, it is OK. If it is abnormal, go to the next step.	Go to the next step.
The disc cannot be removed. (Sales demonstration LOCK)		Sales demonstration LOCK	1. Press the OPEN or CLOSE button, and make sure that the [LOCK] display is brought up. Then, when the power is on, press STOP and POWER simultaneously for five seconds.	If [UNLOCK] appears and the tray opens, it is OK.	--
The disc cannot be removed. (Malfunction)		The disc is stuck because the deck is not working properly.	1. When the power is off, press STOP and CH_UP simultaneously for five seconds.	If the tray opens, it is OK.	Go to the next step.
			2. Remove the front panel, remove the disk using an eject pin. (Refer to the following drawing.)	If the disc can be ejected, it is OK	Go to the next step.





Eject pin
(Part number: JZS0484)

Turn the gear with an eject pin.

<Symptom1>	<Symptom2>	<Probable causes>	<Check to conduct>	<Countermeasure> When operation is OK	When operation is not OK
A timer program has not been created.	「F12」display	Timer program error (defective Main P.C.B.)	1. Replace the Main P.C.B. or check and repair. Check the timer program operation using the timer section.	Defective Main P.C.B.	--

* Transfer the signals from the remote control keys [0] and [1] in the service test setting.

7. Standard Inspection Specifications after Making Repairs

After making repairs, we recommend performing the following inspection, to check normal operation.

No.	Procedure	Item to Check
1	Turn on the power.	The Panasonic RAM disc should be recog
2	Enter the EE (TU IN / AV IN - AV OUT) mode.	No abnormality should be seen in the pict sound or operation.
3	Perform auto recording and playback for one minute using the RAM disc.	No abnormality should be seen in the pict sound or operation.
4	If a problem is caused by a VCD, DVD-R, DVD-Video, Audio-CD, or MP3, playback the test disc.	No abnormality should be seen in the pict sound or operation.
5	After checking and making repairs, upgrade the firmware to the latest version.	Make sure that [FIRM_SUCCESS] appears FL displays.
6	Transfer [9][9] in the service mode setting, and initialize the service settings (return various settings and error information to their default values. The laser time is not included in this initialization).	Make sure that [FACT INIT] appears in the display. After checking it, turn the power off.
7	To replace the RAM drive, reset all the information (including the laser time) in the process mode 1 setting. *The laser time is the total time that DVDs or CDs have been played or recorded.It is recorded on the Digital P.C.B..	Maku sure that [TEST L1] appears in the F display. After checking it, turn the power off.

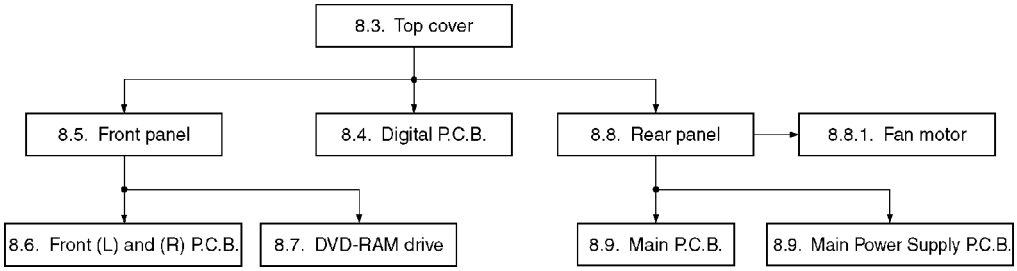
Use the following checklist to establish the judgement criteria for the picture and sound.

Item	Contents	Item	Contents	Check
	Block noise		Distorted sound	
	Crosscut noise		noise (static, background noise, etc.)	
	Dot noise		The sound level is too low.	
Picture	Picture disruption	Sound	The sound level is too high.	
	Not bright enough		The sound level changes.	
	Too bright			
	Flickering color			
	Color fading			

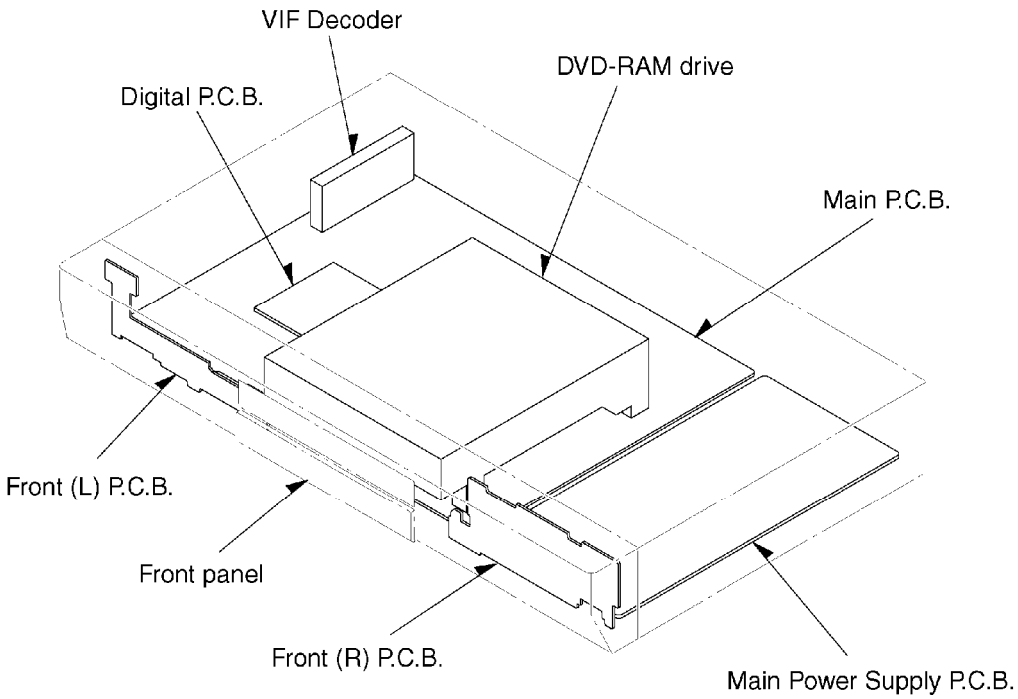
8. Assembling and Disassembling

8.1. Disassembly flow chart

The following chart is the procedure for disassembling the casing and inside parts for internal inspection when carrying out the servicing.
To assemble the unit, reverse the steps shown in the chart below.



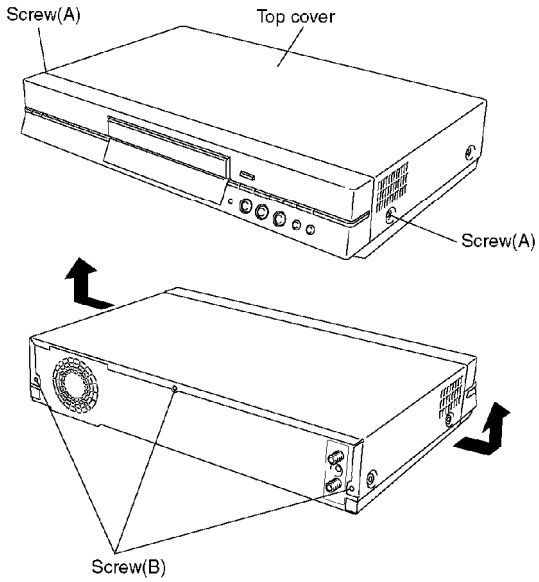
8.2. P.C.B. Positions



8.3. The Top Cover

1. Remove the 2 screws (A) and 3 screws (B).

2. Open the both ends at the front side of the Top cover a bit and lift the Top cover in the direction of the arrows.

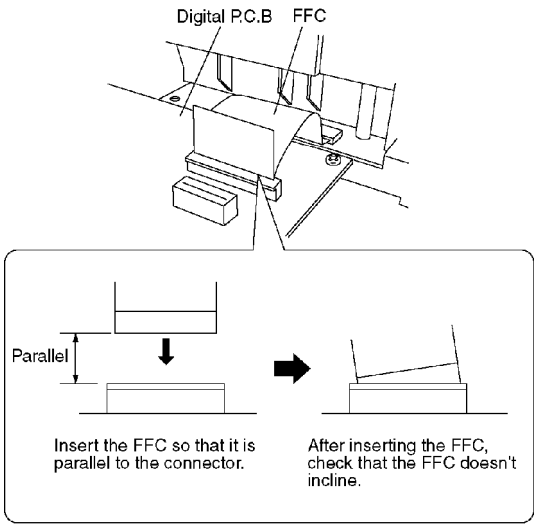


8.4. The Digital P.C.B.

1. Remove the FFC.

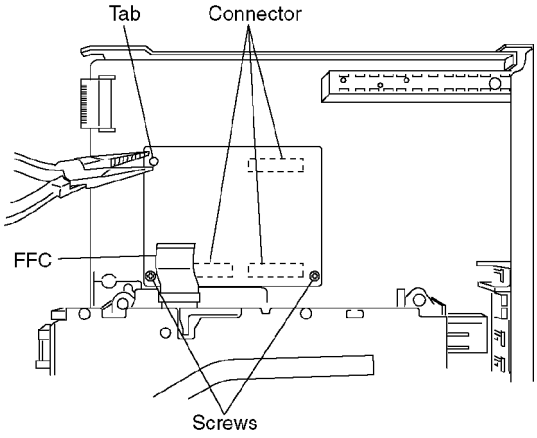
CAUTION:

When replacing Digital P.C.B., pay attention as below.



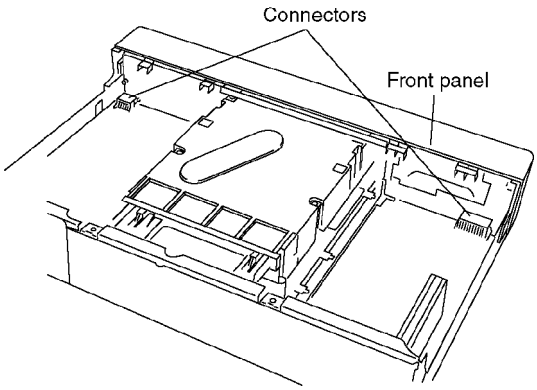
2. Remove the 2 screws.

3. Pinch the tab with the pliers to pull out the 3 Connectors and Digital P.C.B.



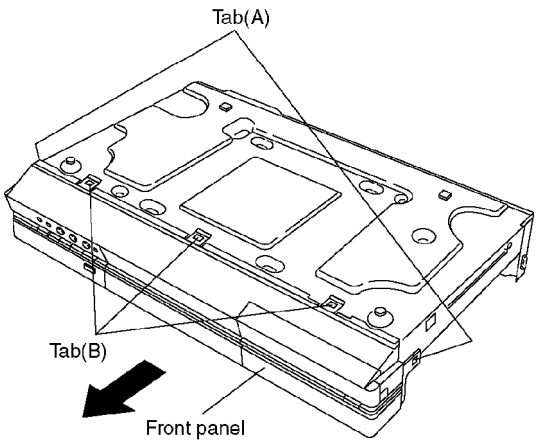
8.5. The Front panel

1. Remove the 2 connectors.



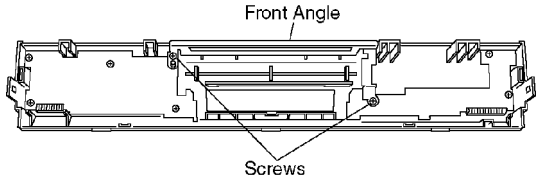
2. Remove the 2 tab (A) and 3 tab (B) in this order. (The tab (A) and the tab (B) should be removed at the same time, respectively.)

3. Move the front panel to your side slowly and remove it.

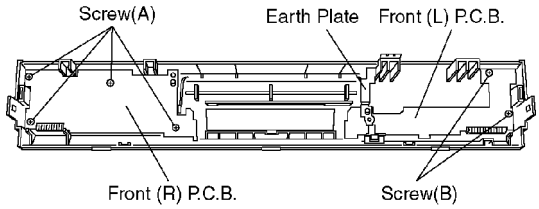


8.6. The Front (L) and (R) P.C.B.

1. Remove the 2 screws and remove the Front Angle.

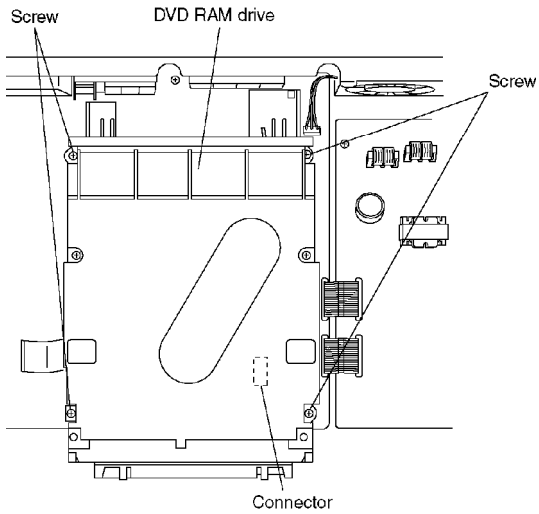


2. Remove the 4 screws (A) and remove the Front (R) P.C.B.
3. Remove the 2 screws (B) with Earth plate and remove the Front (L) P.C.B.



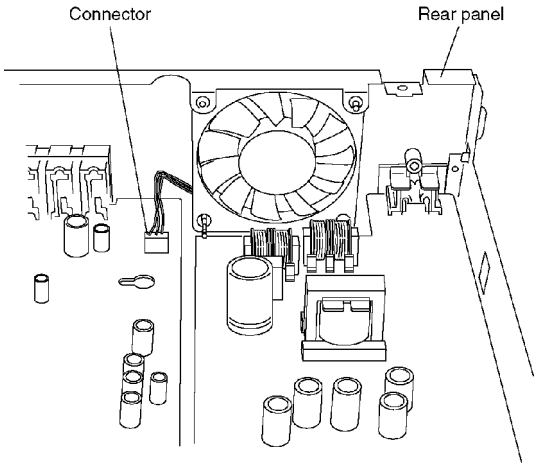
8.7. The DVD-RAM Drive

1. Remove the 4 screws.
2. Pull out the DVD-RAM Drive vertically and remove the connector.



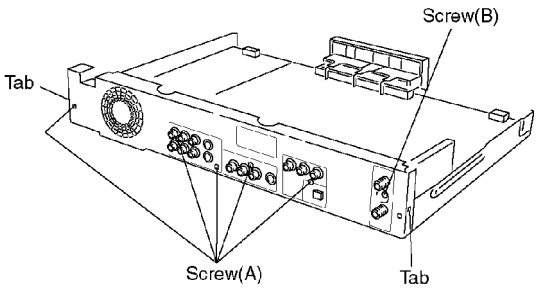
8.8. The Rear panel

1. Remove the Fan Motor connector.



2. Remove the 5 screws (A) and a screw (B).

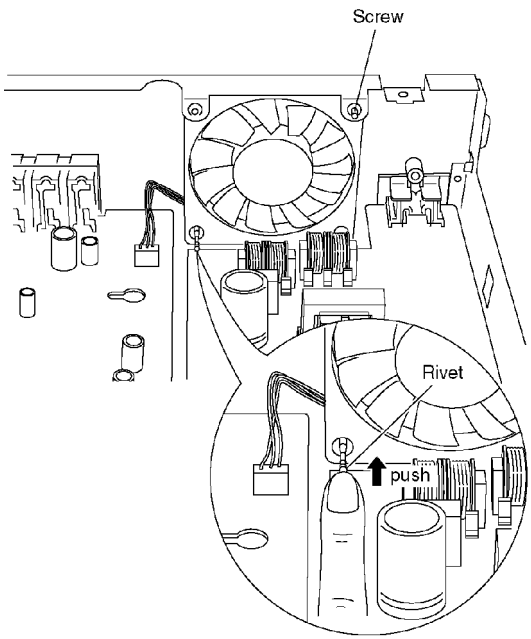
3. Remove the 2 tabs and remove the Rear panel.



8.8.1. In case of removing Fan motor from Rear panel

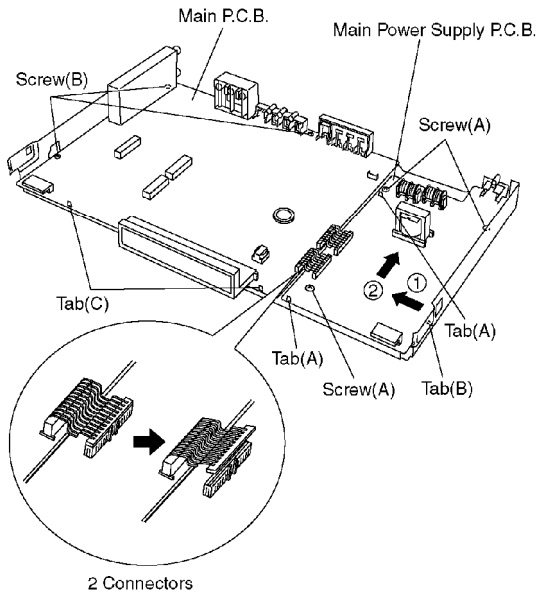
1. Remove a screws.

2. Push tip of rivet to remove it.



8.9. The Main Power Supply P.C.B. and Main P.C.B.

1. Remove the 2 connectors.
2. Remove the 3 screws (A) and 2 tab (A).
3. Remove the Main Power Supply P.C.B and tab (B) , pull out it in the direction of the arrow. ① to ② .
4. Remove the 3 screws (B) and 2 tab (C).
5. Remove the Main P.C.B.



9. Service Positions

9.1. Checking procedure

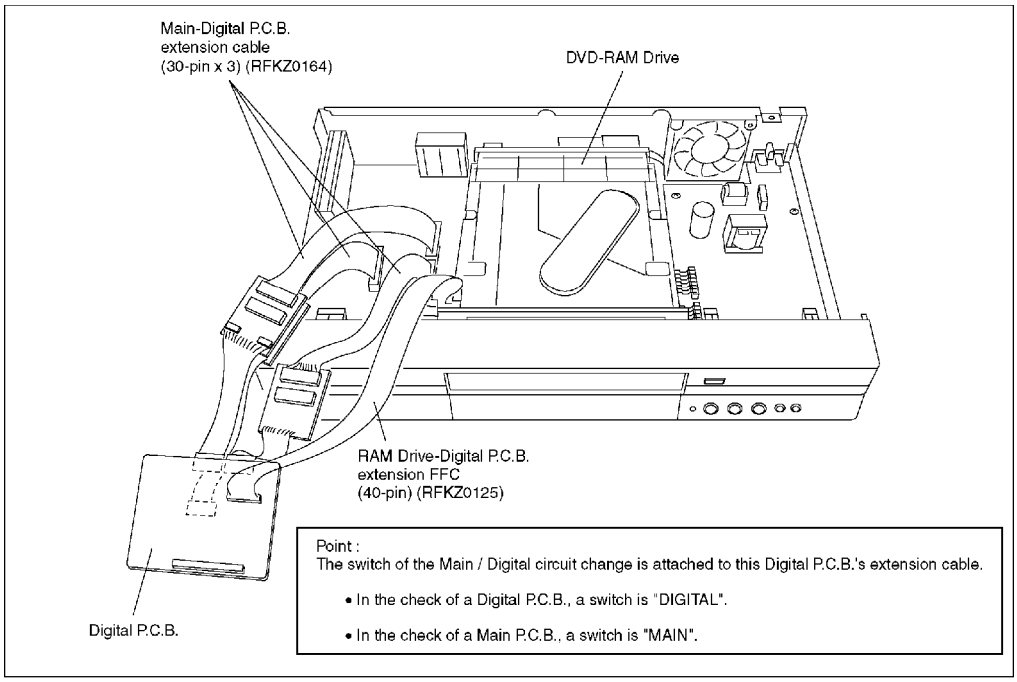
Note:
For the disassembling procedure, see the section 8.

9.2. Checking the Digital P.C.B.

1. Remove the Top Cover.
2. Remove the FFC (RAM Drive - Digital P.C.B.).
3. Remove the Digital P.C.B.
4. Use the extension cable (RFKZ0164) to connect the Main P.C.B. and Digital P.C.B.

5. Use the extension FFC (RFKZ0125) to connect the RAM Drive and Digital P.C.B.

Service tools	
Extension FFC (RAM Drive - Digital P.C.B.)	RFKZ0125 (40Pin)
Extension Cable (Main P.C.B. - Digital P.C.B.)	RFKZ0164 (30Pin x 3)



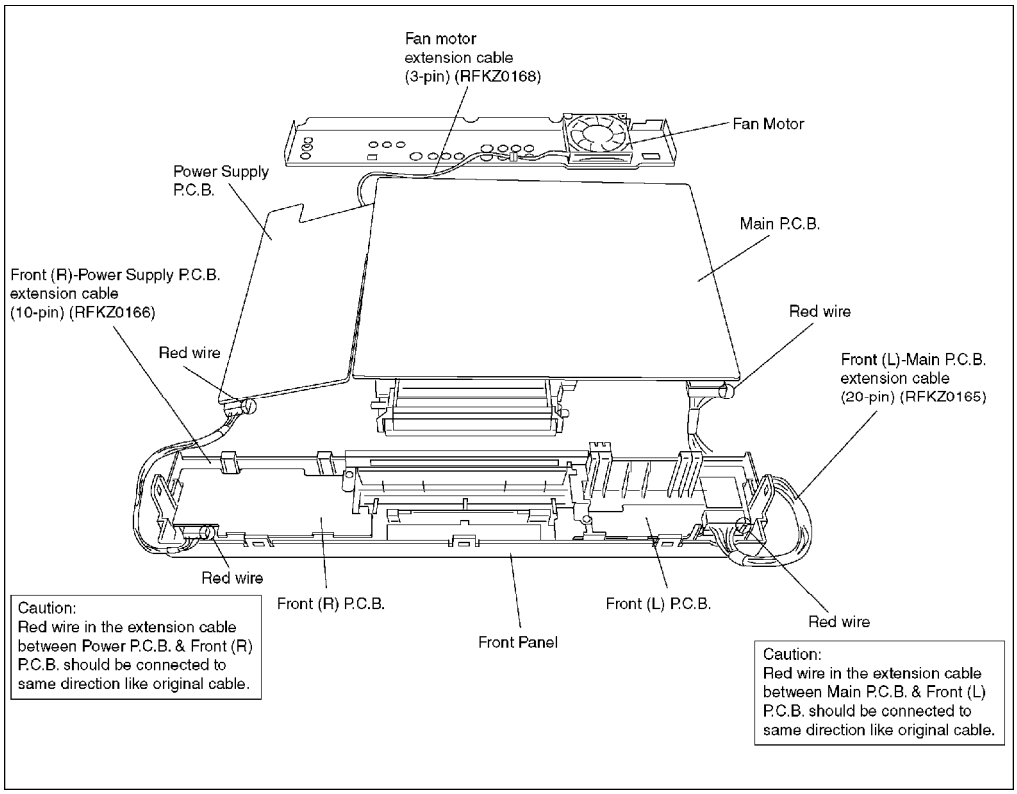
9.3. Checking the Main P.C.B.

1. Remove the Top Cover.
2. Remove the Front Panel.
3. Remove the Rear Panel.
4. Remove the Power Supply P.C.B., Main P.C.B. and RAM Drive.
5. Use the extension cable (RFKZ0168) to connect the Main P.C.B. and Fan Motor.
6. Connect the Power Supply P.C.B., Main P.C.B. and RAM Drive.
7. Install to the service positions views.
8. Use the extension cable (RFKZ0165) to connect the Main P.C.B.

and Front P.C.B. (L).

9. Use the extension cable (RFKZ0166) to connect the Power supply P.C.B. and Front P.C.B. (R).

Service tools	
Extension Cable (Main P.C.B. - Front (L) P.C.B.)	**RFKZ0165 (20Pin)**
Extension Cable (Power supply P.C.B. - Front (R) P.C.B.)	**RFKZ0166 (10Pin)**
Extension Cable (Fan motor)	**RFKZ0168 (3Pin)**



9.4. Checking the Power Supply P.C.B.

1. Remove the Top Cover.

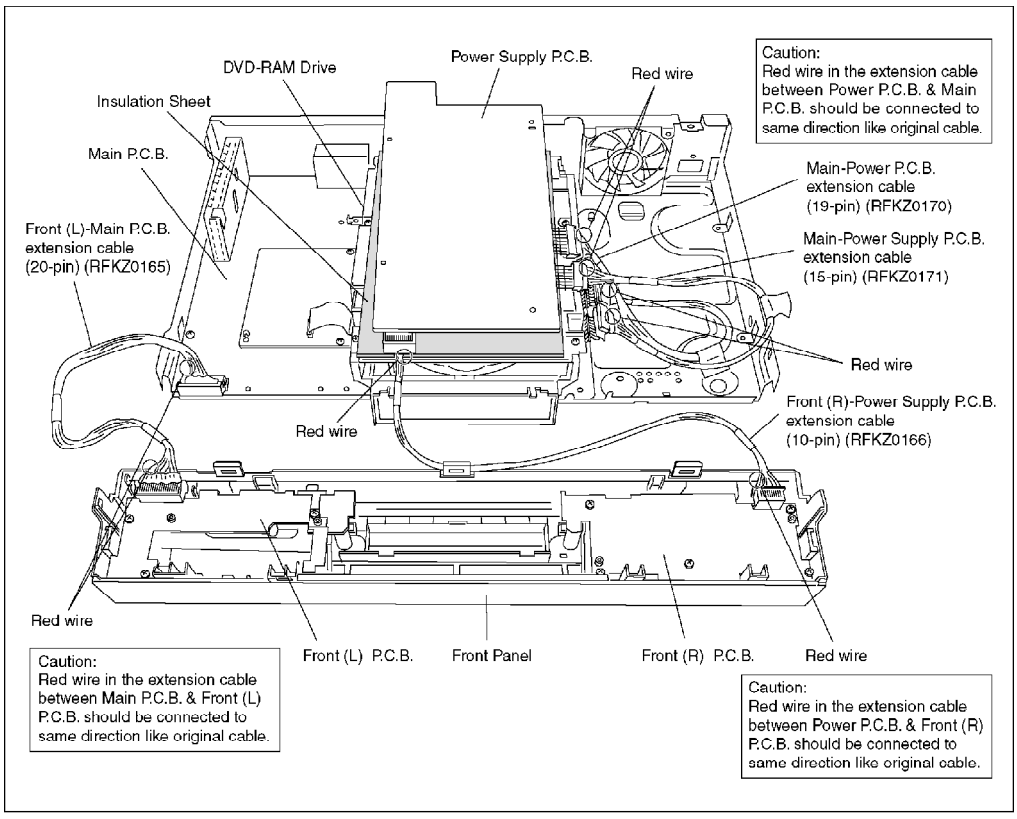
2. Remove the Front Panel.

3. Remove the screw which fixed Rear Panel and AC Inlet on the Power Supply P.C.B..

4. Remove the Power Supply P.C.B., fix it on the insulation sheet.

5. **Use the extension cables (RFKZ0170,RFKZ0171) to connect the Main P.C.B. and Power Supply P.C.B..**
6. **Use the extension cable (RFKZ0165) to connect the Main P.C.B. and Front (L) P.C.B.**
7. **Use the extension cable (RFKZ0166) to connect the Power Supply P.C.B. and Front (R) P.C.B.**

Service tools	
Extension Cable (Main P.C.B. - Front (L) P.C.B.)	**RFKZ0165 (20-pin)**
Extension Cable (Power supply P.C.B. - Front (R) P.C.B.)	**RFKZ0166 (10-pin)**
Extension Cable (Main P.C.B. - Power supply P.C.B.)	**RFKZ0170 (19-pin)**
Extension Cable (Main P.C.B. - Power supply P.C.B.)	**RFKZ0171 (15-pin)**



10. List of Various Mode

10.1. List of Various Buttons

Each buttons name	Functions
DVD	To turn power on or off on the DVD.
VIDEO Plus+ (Show View/G code)	To set timer program using G code/Show view/VIDEO Plus+
AV	To set AV input on the TV.
Numeric buttons(10key)	To put each number for selecting each functions.
CANCEL	To cancel maker.
SKIP(Reverse)/ (Forward)	To skip chapter or marker position for reverse or forward direction.
STOP	To stop the recording or playback .
PAUSE	To still for playback or pause for recording.
DIRECT NAVIGATOR/ TOP MENU	<PROGRAMME NAVIGATION> To display menu for recoeded program.
	<TOP MENU> (For only VCD or DVD-Video) To display top menu on the VCD or DVD-Video.
Cursor buttons	To move cursor position to select each menu.
FUNCTIONS	To display function menu.
TIMER	To turn timer function on or off.
PROG/CHECK	To display timer porgram menu.
TV	To turn power on or off on the TV.
DVD/TV	To select DVD or Tv operation.
REC	To set the recording.
DIRECT TV REC	To immediately record present TV program that you are watching on the TV. * Scart cable must be connected with TV. * Q-link function must be installed in the TV.
CH UP/DOWN	To select channel on the TV or DVD.
VOLUME UP/ DOWN	To control volume on the TV.

Each buttons name	Functions
SLOW/SEARCH	<SLOW> To set the slow mode during still.
	<SEARCH> To set the cue or review during playback.
PLAY/X1.3	<PLAY> To set playing back.
	<X1.3> To set the times 1.3 speed for playback by keep pressing playback button for more than 1 second.
PLAY LIST/MENU	<PLAY LIST> To display play list.
	<MENU> (For only VCD or DVD-Video) To display menu on the VCD or DVD-Video.
RETURN	To return to previous condition.
MANUAL SKIP	To skip after 30seconds.
TIME SLIP	(HDD,RAM,DVD-R) To playback program being recorded by setting time duration for each 1minute during recording.
	(HDD,RAM,DVD-R) To playback recorded program by setting time duration for each 1minute.* During recording or playback,playback 30seconds previous by pressing the button.

Below buttons are located inside slide cover.

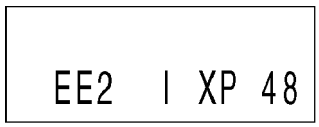
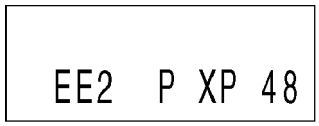
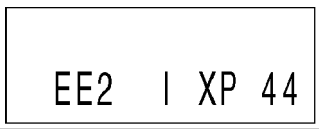
Each buttons name	Functions
REC MODE	To set recording speed.
F Rec	To frexible recording with best quality to caluculate recording rate within remaining recording time.
STATUS	To display product status,time status & present bit-rate.
INPUT SELECT	To set AV input on the DVD.
ERASE	To erase recorded program or playlist during playback.
AUDIO	To select audio with tuner input or playback sound.
FRAME (Reverse/ Forward)	To set frame advance.
POSITION MEMORY	To memorize STOP position for playing back again. * STOP position is erased by turning power off and openning tray.
MARKER	(DVD-RAM/-R)To put marker for making chapter.
AV LINK	To playback on the DVD and select AV1 mode on the TV automatically. * Scart cable must be connected with TV.
DISPLAY	To select disc,playback,picture & sound status.
OPEN/CLOSE	To open or close tray.
SETUP	To display SETUP menu.
DUBBING	To dub recorded program at HDD to DVD-RAM/-R during playback.
EXT LINK	To set EXT LINK mode to record automatically by detecting signal from external equipment.

10.2. Special modes at a glance

10.2.1. Service modes

Service mode setting: While the power is off, press TIME SLIP, STOP and OPEN / CLOSE simultaneously for five seconds.

Item		FL display	Key operation
Mode name	Description		Remote controller ke
Clear item	Items 1-20 are cleared.	SERVICE MODE	[0] [0] while in service mod
Error code display	FL display of the last error code held by timer	F00 FL display of the error code（U/H/F)	[0] [1] while in service mod
ROM version display	Region code, main, timer and drive firmware versions are displayed on screen and FL tube.	REGION* MAIN ****** TIMER ***** DRIVE **** * Version display	[0] [2] while in service mod
White picture output	White picture output from AV decoder White picture (Chroma: 100%) Switching enabled by subcommand “I/P switch”	Initialization mode (Interlace) WHIT I	[1] [1] while in service m
		Progressive/ Interlace switched. WHIT P	[1] [4] while in white picture *I ⟵ ⟶ P Toggle switched.
Magenta picture output	Magenta picture output from AV decoder Magenta picture (Chroma: 100%) Switching enabled by subcommand “I/P switch”	Initialization mode (Interlace) MAGE I	[1] [2] while in service m
		Progressive/ Interlace switched MAGE P	[1] [4] while in Magenta pict mode *I ⟵ ⟶ P Toggle switched.

Item		FL display	Key operation
Mode name	Description		Remote controller ke
RTSC return XP (A& V)	Disc recording of L1 input Encoded and decoded for external output without playback. REC mode is XP.	Initialization mode (EE2/ Interlace/ XP/ Audio 48kHz) 	[1] [3] while in service m
		Progressive/ Interlace switched. 	[1] [4] while in RTSC return mode *I ⟵ ⟶ P Toggle switched.
		Audio 44.1kHz/ 48kHz switch 	[2] [4] while in RTSC retur mode *48k ⟵ ⟶ 44.1k Toggle swi
I/P switching	“Interlace” and “Progressive” are switched. Initial setting is “Interlace”. (This command is effective when performing 14 and 15.)	Initialization mode  Progressive 	[1] [4] while in service m *I ⟵ ⟶ P Toggle switch
Audio Mute (XTMUTE)	Check whether mute is applied normally by the microcomputer timer.		[2] [1] while in service m
Audio Mute (XDMUTE)	Check whether is mute applied normally by the Digital P.C.B. (GLUE IC).		[2] [2] while in service m

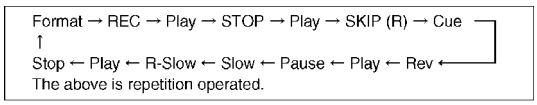
Item		FL display	Key operation
Mode name	Description		Remote controller ke
Audio pattern output	The audio pattern stored in the internal memory is output (1kHz-18dB).	Initialization mode (Interlace) AUDIO 48	[2] [3] while in service m
		Audio 44.1kHz / 48kHz switched. AUDIO 44	[2] [4] while in white picture *48k ← → 44k Toggle switc
RAM drive last error	RAM drive error code display. *For details about the drive error code, refer to the manual for the specific RAM drive.	** **** ** ** ** (1) (2) (3) (4) (5) * (1)Sense key * (2)Additional sense code * (3)Host detail * (4)Access detail * (5)Mecha detail * This information is saved to EEPROM on the RAM drive.	[3] [2] while in service m
Laser use time display	To check laser use time of drive	LASER **** * (*)displays the time (in hours). * The last working time is incremented in both the DVD/CD Play and Record modes.	[4] [1] while in service m
Laser error count	The number of times that a laser error has occured due to a defective disc or defective drive is counted and displayed.	LASERERR * * (*)is the number of times a laser error occured. * This information is saved to EEPROM on the RAM drive.	[4] [3] while in service m
Factors which cause drive error	The disc condition is displayed when an error occures.	** **** ** ** ** (1) (2) (3) (4) (5) * (1)Sense key * (2)Additional sense code * (3)Host detail * (4)Access detail * (5)Mecha detail * This information is saved to EEPROM on the RAM drive.	[4] [4] while in service m

Item		FL display	Key operation
Mode name	Description		Remote controller ke
Disc manufacture ID	Display the manufacture's ID for a disc on which a drive error has occured.	********** The display example can be checked using the separate table.	[4] [5] while in service m
Illumination of all FL /LEDs	All FL and LEDs are lit up.	Illumination of all FL/LED's	[5] [1] while in service m
S1 signal output	Forcibly superimpose the S1 signal (5V DC) on the EE chroma signal, and check the output on the S terminal.	S1 OUTPUT	[5] [2] while in service m
S2 signal output	Forcibly superimpose the S2 signal (2.2V DC) on the EE chroma signal, and check the output on the S terminal.	S2 OUTPUT	[5] [3] while in service m
Front connection inspection	Press all the main unit's buttons and check the connection with the Main P.C.B..	000 12 (1) (2) *(1)Each time a key is pressed, the grid on the FL display will grow larger. *(2)Total number of main unit buttons.	[5] [4] while in service m
Tray OPEN/CLOSE	The RAM drive tray is opened and closed repeatedly.	CYCLE **** *FL display of the CYCLE count out.	[9] [1] while in service m * AC power should be turn to release this operatio
Error code initialization	Initialization of the last error code held by timer (Write in F00)	ERROR INIT	[9] [8] while in service m
Main unit initialization	All parameters (including timer) are initiaized to the factory setting.	FACT INIT	[9] [9] while in service m

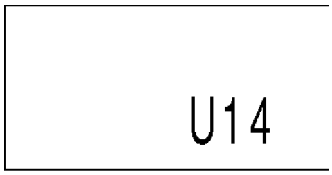
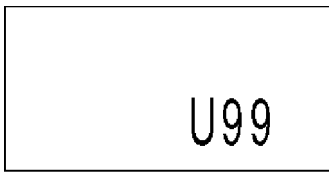
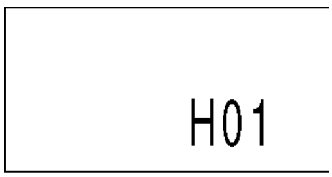
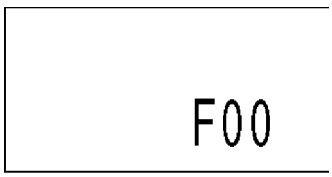
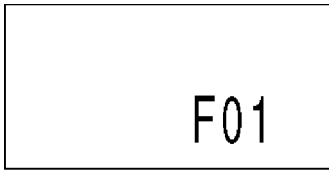
10.2.2. Other special modes

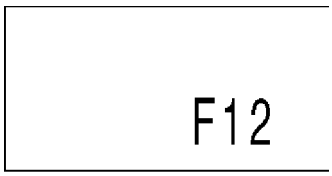
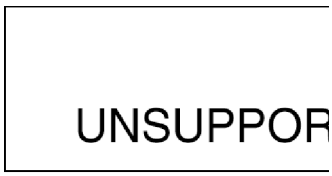
Item		FL display	Key operation
Mode name	Description		Remote controller ke
Factory mode 1	*All the main unit's parameters are initialized. *Since a drive region is not specified [0] on replacement drives, it is specified when the drive is replaced.	TEST L1	When the power is off, pres SKIP(R), TIME SLIP and OPI CLOSE simultaneously for seconds.
Audiovisual ID cancel	The audiovisual level setting password is canceled.	---	(Remote control) Set th audiovisual limit level to "8 set the ID number to "00
Shop display LOCK cancel	Ejection of the disc is prohibited.-	---	(Main unit) Open the tray, a press SKIP(R) and SKIP(L) simultaneously for five sec Press the OPEN/CLOSE but and make sure that [LOCK] displayed. Then, with the p on,press STOP and POWEF simultaneously for five sec
Forced disc eject	Removing a disc that cannnot be ejected.	---	When the power is off, pres STOP and CH_UP simultaneously for five sec
Progressive initialization	The progressive setting is initialized.	---	In STOP(EE) mode, press C and CH DOWN simultaneou for five seconds.
ATP initialization	The ATP setting is initialized.	---	In STOP(EE) mode, press S and TIME SLIP simultaneou for five seconds.
Aging	See the * Aging Description below.	---	When the power is off, pres TIMEWARP + OPEN / CLOS CH DOWN simultaneously f five seconds.

*** Aging Description**



10.2.3. List of the U/H/F Error Displays

Display	Diagnosis	Description	FL display
U12	Remote control mode error	Display appears when main unit and remote controller modes are not matched.	
U14	Abnormal inner temperature detected	Display appears when the drive temperature exceeds 71Åé. Main unit is powered off forcibly. For 30 minutes after this, all key entries are disabled. (Fan motor operates at the highest speedforthe first 5 minutes. For the remaining 25 minutes, fan motor is also stopped.) The event is saved in memory as well.	 Displayed from the time of detection and while key en disabled after power-off (3 minutes).
U99	Hang-up	Displayed when microprocessor has hang-up.	 Remains displayed.
H01	Inoperative fan motor	Display appears when inoperative fan motor is detected after powered on.	 Remains displayed.
F00	No error information	Initial setting for error code in memory (Initialization is possible with error code initialization and main unit initialization.)	 Remains displayed.
F01	Drive hardware error	Display appears when drive unit error is detected. The event is saved in memory.	 Remains displayed.

Display	Diagnosis	Description	FL display
F12	Initialization error when main microprocessor is started up for program recording	Display appears when initialization error is detected after starting up main microprocessor for program recording. The event is saved in memory.	 Remains displayed.
UNSUPPORT	Unsupported disc error	*A disc an unsupported format was played, even though the drive starts normally. *The data format is not supported even though the media type is supported.	
NO READ	Disc read error	*A disc is flawed or dirty. *A poor quality failed to start. *The track information could not be read.	
HARD ERR	Drive error	The drive detected a hard error.	
RECOVER	Restoration operation	Since the power cord fell out during a power failure or operation, it is under restoration operation. *It will OK, if a display disappears automatically. If a display does not disappear, thereis the possibility that defective Digital P.C.B. / RAM drive.	

10.3. The information table of an error generating disk

10.3.1. Error generating disk type

(hexadecimal)	Disk type
00	DVD-ROM/Video
10	Audio-CD
20	2.6GB DVD-RAM
30	4.7GB DVD-RAM
40	DVD-R

10.3.2. Error generating disk state

(hexadecimal)	Contets			
	Sizes of disk	Cartridge disk state	Cartridge state	Disk distinction state
00	12cm	Have not opened yet.	With cartridge	OK
10	12cm	Have not opened yet.	With cartridge	NG
20	12cm	Have not opened yet.	Nakedness	OK
30	12cm	Have not opened yet.	Nakedness	NG
40	12cm	Have been opened.	With cartridge	OK
50	8cm	Have not opened yet.	Nakedness	OK
60	12cm	Have been opened.	Nakedness	OK
70	12cm	Have been opened.	Nakedness	NG
80	8cm	Have not opened yet.	With cartridge	OK
90	8cm	Have not opened yet.	With cartridge	NG
A0	12cm	Have been opened.	With cartridge	NG
B0	8cm	Have not opened yet.	Nakedness	NG
C0	8cm	Have been opened.	With cartridge	OK
D0	8cm	Have been opened.	With cartridge	NG
E0	8cm	Have been opened.	Nakedness	OK
F0	8cm	Have been opened.	Nakedness	NG

10.3.3. Disk production maker ID

No	FL displays	Disk type / Maker name
1	MEI*****	DVD-R by Panasonic
2	PVC*****	DVD-R by Pioneer
3	MCC*****	DVD-R by MITSUBISHI
4	TDK*****	DVD-R by TDK
5	MXL*****	DVD-R by Maxell
6	MCI*****	DVD-R by MITUI CHEMICALS
7	MATSUSHITA	DVD-RAM by Panasonic
8	MXL*	DVD-RAM by Maxell

*** Since a display is arbitrarily set up by the disk producer side, the above-mentioned display may be changed.**

Please make it reference as an example of a display.

11. Abbreviations

INITIAL/LOGO		ABBREVIATIONS
A	A0~UP	ADDRESS
	ACLK	AUDIO CLOCK
	AD0~UP	ADDRESS BUS
	ADATA	AUDIO PES PACKET DATA
	ALE	ADDRESS LATCH ENABLE
	AMUTE	AUDIO MUTE
	AREQ	AUDIO PES PACKET REQUEST
	ARF	AUDIO RF
	ASI	SERVO AMP INVERTED INPUT
	ASO	SERVO AMPOUTPUT
	ASYNC	AUDIO WORD DISTINCTION SYNC
B	BCK	BIT CLOCK (PCM)
	BCKIN	BIT CLOCK INPUT
	BDO	BLACK DROP OUT
	BLKCK	SUB CODE BLOCK CLOCK
	BOTTOM	CAP. FOR BOTTOM HOLD
	BYP	BYPATH
	BYTCK	BYTE CLOCK
C	CAV	CONSTANT ANGULAR VELOCITY
	CBDO	CAP. BLACK DROP OUT
	CD	COMPACT DISC
	CDSCK	CD SERIAL DATA CLOCK
	CDSRDATA	CD SERIAL DATA
	CDRF	CD RF (EFM) SIGNAL
	CDV	COMPACT DISC-VIDEO
	CHNDATA	CHANNEL DATA
	CKSL	SYSTEM CLOCKSELECT
	CLV	CONSTANT LINEAR VELOCITY
	COFTR	CAP. OFF TRACK
	CPA	CPU ADDRESS
	CPCS	CPU CHIP SELECT
	CPDT	CPU DATA
	CPUADR	CPU ADDRESS LATCH
	CPUADT	CPU ADDRESS DATA BUS
	CPUIRQ	CPU INTERRUPT REQUEST
	CPRD	CPU READ ENABLE
	CPWR	CPU WRITE ENABLE
	CS	CHIPSELECT
	CSYNCIN	COMPOSITE SYNC IN
	CSYNCOUT	COMPOSITE SYNC OUT

INITIAL/LOGO		ABBREVIATIONS
D	DACCK	D/A CONVERTER CLOCK
	DEEMP	DEEMPHASIS BIT ON/OFF
	DEMPH	DEEMPHASIS SWITCHING
	DIG0~UP	FL DIGIT OUTPUT
	DIN	DATA INPUT
	DMSRCK	DM SERIAL DATA READ CLOCK
	DMUTE	DIGITAL MUTE CONTROL
	DO	DROP OUT
	DOUT0~UP	DATAOUTPUT
	DRF	DATA SLICE RF (BIAS)
	DRPOUT	DROP OUT SIGNAL
	DREQ	DATA REQUEST
	DRESP	DATA RESPONSE
	DSC	DIGITAL SERVO CONTROLLER
	DSLF	DATA SLICE LOOP FILTER
	DVD	DIGITAL VIDEO DISC

INITIAL/LOGO		ABBREVIATIONS
E	EC	ERROR TORQUE CONTROL
	ECR	ERROR TORQUE CONTROL REFERENCE
	ENCSEL	ENCODER SELECT
	ETMCLK	EXTERNAL M CLOCK (81MHz/ 40.5MHz)
	ETSCLK	EXTERNAL S CLOCK (54MHz)
F	FBAL	FOCUS BALANCE
	FCLK	FRAME CLOCK
	FE	FOCUS ERROR
	FFI	FOCUS ERROR AMP INVERTED INPUT
	FEO	FOCUS ERROR AMP OUTPUT
	FG	FREQUENCY GENERATOR
	FSC	FREQUENCY SUB CARRIER
	FSCK	FS (384 OVER SAMPLING) CLOCK
G	GND	COMMON GROUNDING (EARTH)
H	HA0~UP	HOST ADDRESS
	HD0~UP	HOST DATA
	HINT	HOST INTERRUPT
	HRXW	HOST READ/WRITE

INITIAL/LOGO		ABBREVIATIONS
I	IECOUT	IEC958 FORMAT DATA OUTPUT
	IPFRAG	
	IREF	INTERPOLATION FLAG
	ISEL	I (CURRENT) REFERENCE
		INTERFACE MODE SELECT
L	LDON	LASER DIODE CONTROL
	LPC	LASER POWER CONTROL
	LRCK	L CH/R CH DISTINCTION CLOCK
M	MA0~UP	MEMORY ADDRESS
	MCK	MEMORY CLOCK
	MCKI	MEMORY CLOCK INPUT
	MCLK	MEMORY SERIAL COMMAND CLOCK
	MDATA	MEMORY SERIAL COMMAND DATA
	MDQ0~UP	MEMORY DATA INPUT/OUTPUT
	MDQM	MEMORY DATA I/O MASK
	MLD	MEMORYSERIAL COMMAND LOAD
	MPEG	MOVING PICTURE EXPERTS GROUP
O	ODC	OPTICAL DISC CONTROLLER
	OFTR	OFF TRACKING
	OSCI	OSCILLATOR INPUT
	OSCO	OSCILLATOR OUTPUT
	OSD	ON SCREEN DISPLAY
P	P1~UP	PORT
	PCD	CD TRACKING PHASE DIFFERENCE
	PCK	PLL CLOCK
	PDVD	DVD TRACKING PHASE DIFFERENCE
	PEAK	CAP. FOR PEAK HOLD
	PLLCLK /	CHANNEL PLL CLOCK
	PLLOK	PLL LOCK
	PWMCTL	PWM OUTPUT CONTROL
	PWMDA	PULSE WAVE MOTOR DRIVEA
	PWMOA, B	PULSE WAVE MOTOR OUT A, B

INITIAL/LOGO		ABBREVIATIONS
R	RE	READ ENABLE
	RFENV	RF ENVELOPE
	RFO	RF PHASE DIFFERENCE
	RS	OUTPUT
	RSEL	(CD-ROM) REGISTER SELECT
	RST	RF POLARITY SELECT
	RSV	RESET
		RESERVE
S	SBI0, 1	SERIAL DATA INPUT
	SBO0	SERIAL DATA OUTPUT
	SBT0, 1	SERIAL CLOCK
	SCK	SERIAL DATA CLOCK
	SCKR	AUDIO SERIAL CLOCK
	SCL	RECEIVER
	SCLK	SERIAL CLOCK
	SDA	SERIAL CLOCK
	SEG0~UP	SERIAL DATA
	SELCLK	FL SEGMENT OUTPUT
	SEN	SELECTCLOCK
	SIN1, 2	SERIAL PORT ENABLE
	SOUT1, 2	SERIAL DATA IN
	SPDI	SERIAL DATA OUT
	SPDO	SERIAL PORT DATA INPUT
	SPEN	SERIAL PORT DATA OUTPUT
	SPRCLK	SERIAL PORT R/W ENABLE
	SPWCLK	SERIAL PORT READ CLOCK
	SQCK	SERIAL PORT WRITE CLOCK
	SQCX	SUB CODE Q CLOCK
	SRDATA	SUBCODE Q DATA READ
	SRMADR	CLOCK
	SRMDT0~7	SERIAL DATA
		SRAM ADDRESS BUS
	SS	SRAM DATA BUS 0~7
	STAT	START/STOP
	STCLK	STATUS
	STD0~UP	STREAM DATA CLOCK
	STENABLE	STREAM DATA
		STREAM DATA INPUT ENABLE
	STSEL	STREAM DATA POLARITY
	STVALID	SELECT
	SUBC	STREAM DATAVALIDITY
	SBCK	SUB CODE SERIAL
	SUBQ	SUB CODE CLOCK
	SYSCLK	SUB CODE Q DATA
		SYSTEM CLOCK

		SYSTEM CLOCK

INITIAL/LOGO		ABBREVIATIONS
T	TE	TRACKING ERROR
	TIBAL	BALANCE CONTROL
	TID	BALANCE OUTPUT 1
	TIN	BALANCE INPUT
	TIP	BALANCE INPUT
	TIS	BALANCE OUTPUT 2
	TPSN	OP AMP INPUT
	TPSO	OP AMP OUTPUT
	TPSP	OP AMP INVERTED INPUT
	TRCRS	TRACK CROSSSIGNAL
	TRON	TRACKING ON
	TRSON	TRAVERSE SERVO ON

INITIAL/LOGO		ABBREVIATIONS
V	VBLANK	V BLANKING
	VCC	COLLECTOR POWER SUPPLY VOLTAGE
	VCDCONT	VIDEO CD CONTROL (TRACKING
	VDD	BALANCE)
	VFB	DRAIN POWER SUPPLY
	VREF	VOLTAGE
	VSS	VIDEO FEED BACK
		VOLTAGE REFERENCE
		SOURCE POWER SUPPLYVOLTAGE
W	WAIT	BUS CYCLE WAIT
	WDCK	WORD CLOCK
	WEH	WRITE ENABLE HIGH
	WSR	WORD SELECT RECEIVER

INITIAL/LOGO		ABBREVIATIONS
X	X	X' TAL
	XALE	X ADDRESS LATCH ENABLE
	XAREQ	X AUDIO DATA REQUEST
	XCDROM	X CD ROM CHIP SELECT
	XCS	X CHIP SELECT
	XCSYNC	X COMPOSITE SYNC
	XDS	X DATA STROBE
	XHSYNCO	X HORIZONTAL SYNC OUTPUT
	XHINT	XH INTERRUPTREQUEST
	XI	X' TAL OSCILLATOR INPUT
	XINT	X INTERRUPT
	XMW	X MEMORY WRITE ENABLE
	XO	X' TAL OSCILLATOR OUTPUT
	XRE	X READ ENABLE
	XSRMCE	X SRAM CHIP ENABLE
	XSRMOE	X SRAM OUTPUT ENABLE
	XSRMWE	X SRAM WRITE ENABLE
	XVCS	X V-DEC CHIPSELECT
	XVDS	X V-DEC CONTROL BUS
	XVSYNCO	STROBE
		X VERTICAL SYNC OUTPUT

12. Voltage and Waveform Chart

Note)

- Indicated voltage values are the standard values for the unit measured by the DC electronic circuit tester (high-impedance) with the chassis taken as standard.
Therefore, there may exist some errors in the voltage values, depending on the internal impedance of the DC circuit tester.

12.1. Power Supply P.C.B.

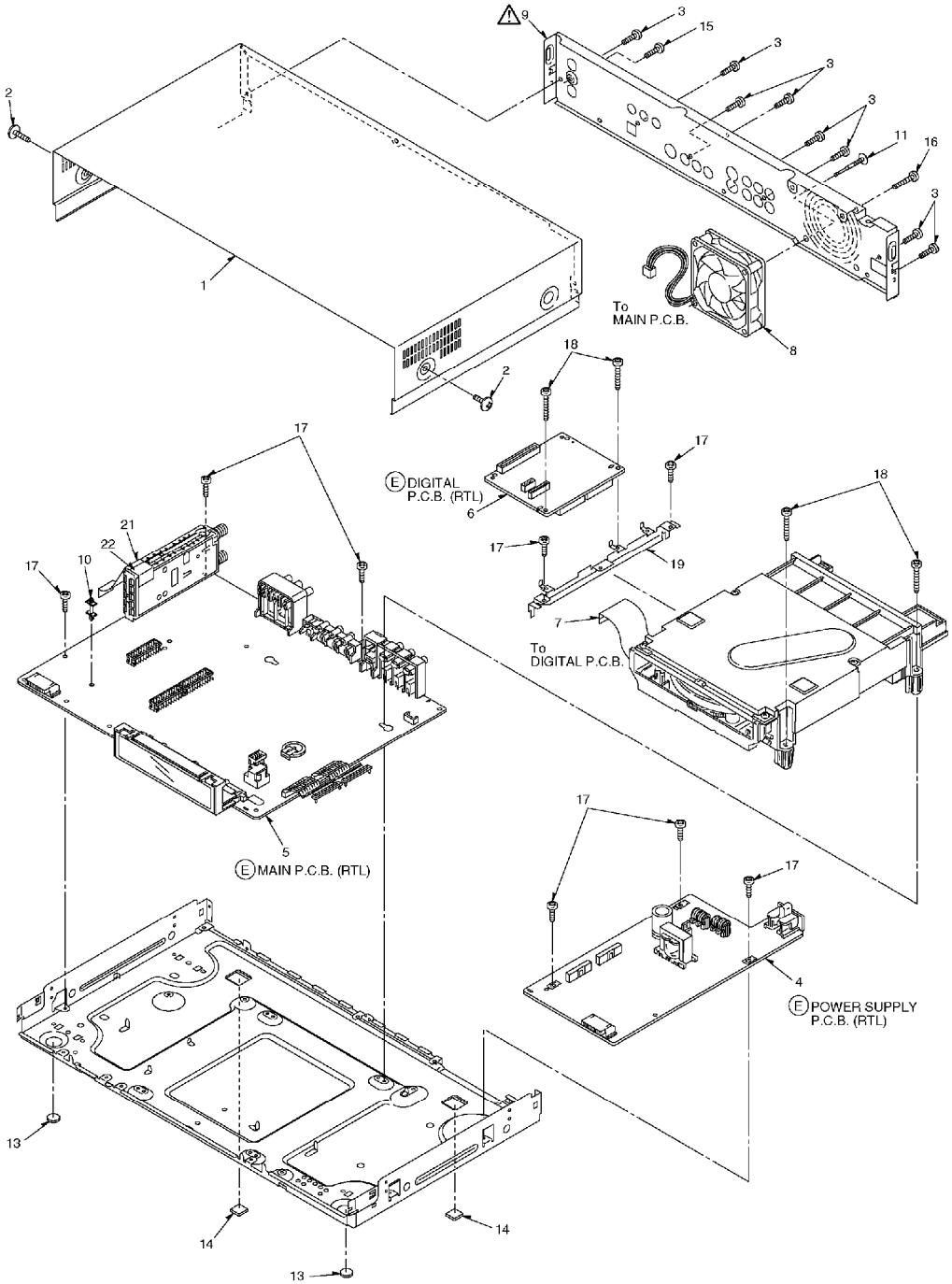
12.2. Main P.C.B.

12.3. Front (R) P.C.B.

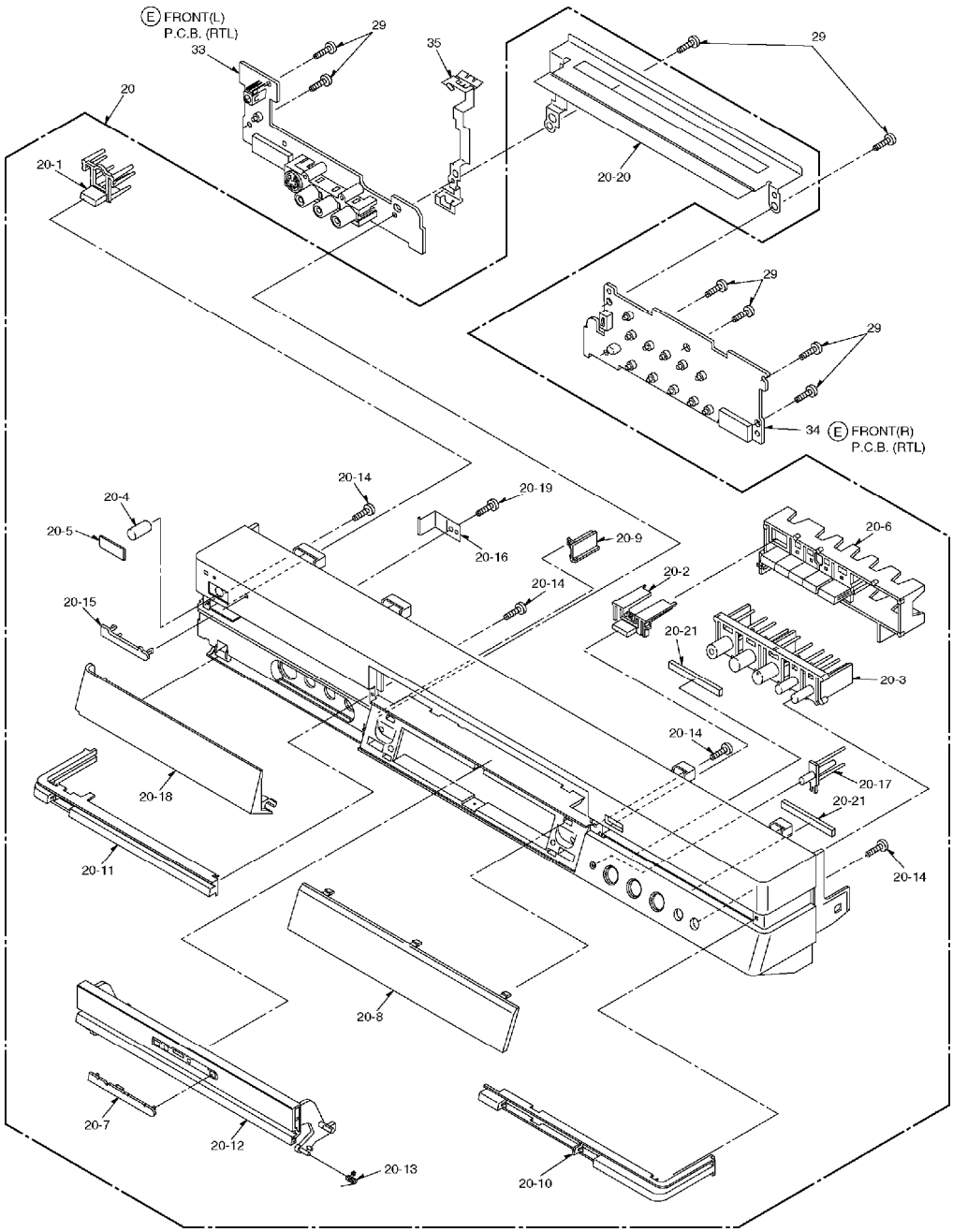
12.4. P9001 Connector

12.5. P9001 Waveform

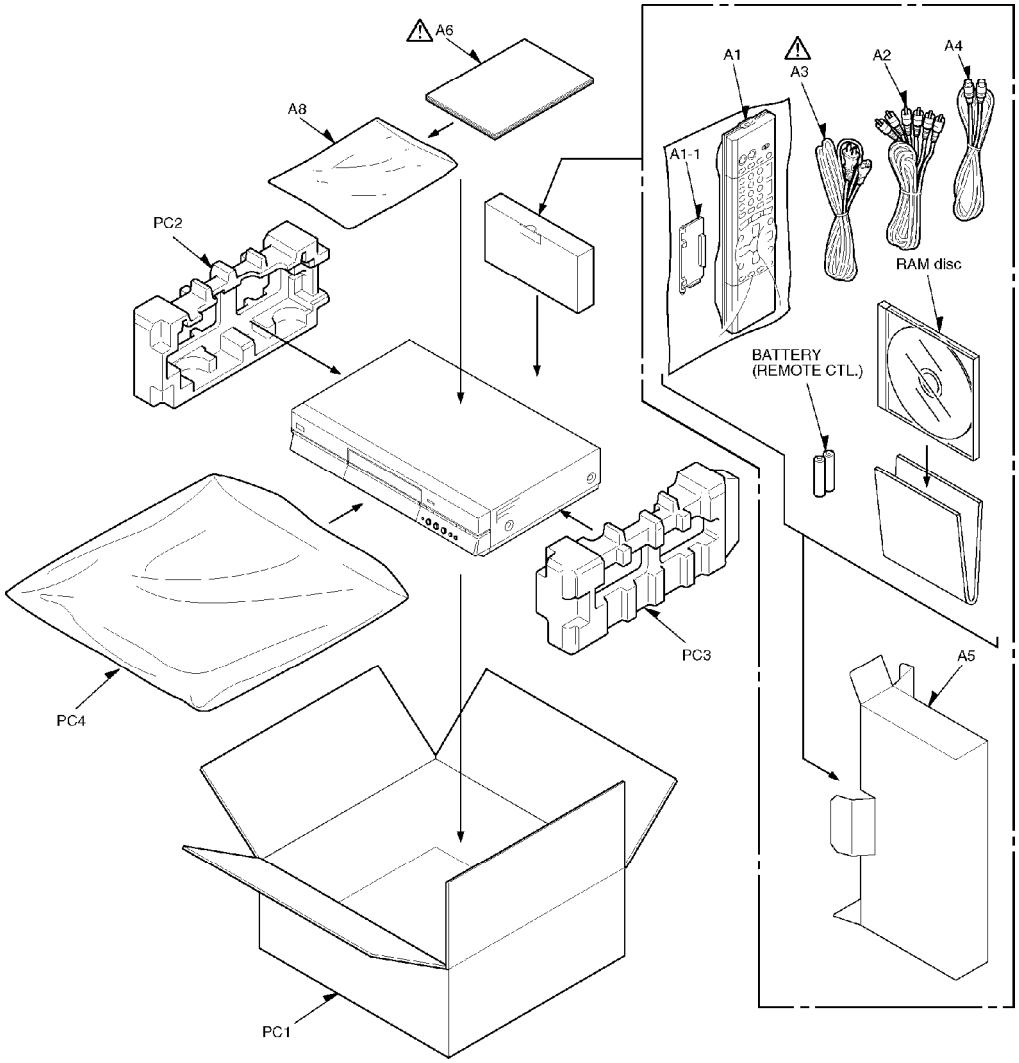
13. Block Diagram



16.2. Casing Parts& Mechanism Section 2



16.3. Packing& Accessories Section



17. Replacement Parts List

Notes:

***Important safety notice:**

Components identified by ⚠ mark have special characteristics important for safety. Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used.

When replacing any of components, be sure to use only manufactures specified parts shown in the parts list.

***Warning: This product uses a laser diode. Refer to caution statements.**

***Capacity values are in microfarads (μ F) unless specified otherwise, P=Pico-farads (pF), F= Farads (F).**

***Resistance values are in ohms, unless specified otherwise, 1K=1,000 (OHM), 1M=1,000k (OHM).**

***The marking (RTL) indicates the retention time is limited for this item. After the discontinuation of this assembly in production, it will no longer be available.**

***"<IA>"-"<IC>", marks in Remarks indicate languages of instruction manuals. [<IA>: English, <IB>: Canadian French, <IC>:English/ French/ Spanish]**

***"(S)", "(K)" marks in Remarks indicate models.**

[(S): DMR-E50P-S, (K): DMR-E50P-K and DMR-E50PC-K]

All parts are supplied by S.P.C..

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
~	01	CASING/ACCESSORY/PACKING		
1	RKM0485-K	TOP COVER	1	(K)
1	RKM0485-S	TOP COVER	1	(S)
2	SNE2129	SCREW	2	
3	VHD0690	SCREW	8	
4	VEP01933A	POWER SUPPLY P.C.B.	1	(RTL)
5	REP3497B	MAIN P.C.B.	1	(RTL)
6	REP3496B	DIGITAL P.C.B.	1	(P)(RTL)
6	REP3496BC	DIGITAL P.C.B.	1	(PL)(RTL)
6	REP3496BD	DIGITAL P.C.B.	1	(PC)(RTL)
7	VWJ1650	FFC(40P)	1	
8	L6FALCCE0001	FAN MOTOR	1	
9	RGR0337B-A	REAR PANEL	1	(P) ⚠
9	RGR0337B-D	REAR PANEL	1	(PL) ⚠
9	RGR0337B-E	REAR PANEL	1	(PC) ⚠
10	RMX0244	PCB HOLDER	1	
11	RMR1529-K	RIVET	1	
13	RKA0143-K	LEG	2	
14	RKA0144-K	FOOT RUBBER	2	
15	XSN3+4FZ	SCREW	1	
16	XTN3+23JFZ	SCREW	1	
17	XTN3+7F-C	SCREW	8	
18	RHD30106	SCREW	4	
19	RMA1640	DIGITAL ANGLE	1	
20	RYP1183A-K	FRONT PANEL ASS'Y1	1	(K)
20	RYP1183A-S	FRONT PANEL ASS'Y1	1	(S)
20-1	RGU2185A-K	POWER BUTTON ASS'Y	1	(S)
20-1	RGU2185A-S	POWER BUTTON ASS'Y	1	(K)
20-2	RGU2186-K	OPEN BUTTON	1	(K)
20-2	RGU2186-S	OPEN BUTTON	1	(S)
20-3	RGU2188-K	OPERATION BUTTON	1	(K)
20-3	RGU2188-S	OPERATION BUTTON	1	(S)
20-4	RGQ0327-Q	IR WINDOW GUIDE	1	
20-5	RKW0724-K	IR WINDOW	1	(K)
20-5	RKW0724-S	IR WINDOW	1	(S)
20-6	RGU2187A-K	CHANNEL BUTTON	1	(S)
20-6	RGU2187A-S	CHANNEL BUTTON	1	(K)
20-7	RGB0146-S	DVD RECORDING BADGE	1	
20-8	RGK1643-Q	FL ORNAMENT	1	
20-9	RMR1526-H	SHAFT HOLDER	1	
20-10	RGK1623A-K	FRONT ORNAMENT(R)	1	(S)
20-10	RGK1623A-S	FRONT ORNAMENT(R)	1	(K)
20-11	RGK1622-K	FRONT ORNAMENT(L)	1	(S)
20-11	RGK1622-S	FRONT ORNAMENT(L)	1	(K)
20-12	RKF0668-K	TRAY DOOR	1	(K)
20-12	RKF0668-S	TRAY DOOR	1	(S)
20-13	VMB3410	BLINDER SPRING	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
20-14	XTN2+6G	SCREW	4	
20-15	VGB0560	PANASONIC BADGE	1	
20-16	RMC0539	DOOR SPRING	1	
20-17	RGL0620-Q	LIGHTING PIECE	1	
20-18	RKF0666A-K	PANEL DOOR	1	(K)
20-18	RKF0666A-S	PANEL DOOR	1	(S)
20-19	XTBS26+8J	SCREW	1	
20-20	RMA1639	FRONT ANGLE	1	
20-21	RMX0252	DAMPER SHEET	2	
21	VGQ5954	TAPE1	1	
22	RGQ0324-K	TAPE2	1	
29	XTBS26+10J	SCREW	8	
33	REP3528AB	FRONT(L)P.C.B.	1	(RTL)
34	REP3528BA	FRONT(R)P.C.B.	1	(RTL)
35	RMC0549	EARTH PLATE(A)	1	
A1	EUR7615KN0	REMOTE CONTROL ASS'Y	1	
A1-1	UR76EC1503A	BATTERY COVER	1	
A2	K2KA6CA00001	A/V CORD	1	
A3	K2CB2CB00006	AC CORD	1	⚠
A4	VJA1091	RF COAXIAL CABLE	1	K1TXAAA00001
A5	RPQF0238	ACCESSORY CASE	1	
A6	RQT6920-P	OPERATING INSTRUCTIONS	1	<IA> ⚠
A6	RQT6921-C	OPERATING INSTRUCTIONS	1	<IB>(PC) ⚠
A6	RQT7038-M	OPERATING INSTRUCTIONS	1	<IC>(PL) ⚠
A8	RPF0378	POLYETHYLENE BAG	1	(PL)
A8	XZB25X34C03X	POLYETHYLENE BAG	1	(P)(PC)
PC1	RPG6497	PACKING CASE	1	(P-S)
PC1	RPG6554	PACKING CASE	1	(PL-S)
PC1	RPG6561	PACKING CASE	1	(P-K)
PC1	RPG6562	PACKING CASE	1	(PC-K)
PC2	RPN1607A	CUSHION(L)	1	
PC3	RPN1607B	CUSHION(R)	1	
~	02	VEP01933A		
C1120	ECQU2A104MLA	0.1U	1	⚠
C1121	ECQU2A103MLA	0.01U	1	⚠
C1124	F1BAF1020020	1000P	1	⚠
C1126	F1BAF1020020	1000P	1	⚠
C1143	EEUEB2E101SE	250V 100U	1	
C1150	F2A1V5600013	35V 56U	1	
C1151	F1B3A182A009	250V 1800P	1	
C1152	ECUV1H101JCV	50V 100P	1	F1H1H101A736
C1153	ECUV1H222KBV	50V 2200P	1	ECJ1VB1H222K
C1154	ECJ1VB1H102K	50V 1000P	1	
C1200	ECQV1H104JL3	50V 0.1U	1	
C1201	F1H1H473A783	50V 0.047U	1	
C1202	F1H1H104A783	50V 0.1U	1	
C1260,61	F2A1A6810017	10V 680U	2	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C1262	F2A1A1020054	10V 1000U	1	
C1271,72	F2A1C6810023	16V 680U	2	
C1301	F1J0J106A014	6.3V 10U	1	
C1302	ECA1AHG221	10V 220U	1	
C1401	F1H1H104A783	50V 0.1U	1	
C1402	F1H1H473A783	50V 0.047U	1	
C1403	ECJ1VB1H102K	50V 1000P	1	
C1404-06	F1H1H104A783	50V 0.1U	3	
C1407	ECUV1H101JCV	50V 100P	1	F1H1H101A736
C1408	ECJ1VB1H102K	50V 1000P	1	
C1409	F2A1A1020054	10V 1000U	1	
C1413	ECUV1H271JCV	50V 270P	1	F1H1H271A736
C1414	F1K1C3350002	16V 3.3U	1	
C1415,16	F1J0J106A014	6.3V 10U	2	
D1110	ERZVGAD471	DIODE	1	⚠
D1140	B0EBKT000002	DIODE	1	
D1151	AU01Z	DIODE	1	B0HAGM000006
D1152	MAZ4091NMF	DIODE	1	
D1154	MA2C165001VT	DIODE	1	
D1156	MA2J11100L	DIODE	1	
D1261	B0JAQE000004	DIODE	1	
D1271	B0JAQG000005	DIODE	1	
D1272,73	D1FL20UF4063	DIODE	2	B0HCMM000001
D1305	MA2Q73800L	DIODE	1	
D1400	MA2J11100L	DIODE	1	
D1402	MA2Q73800L	DIODE	1	
D1404	B0HANM000024	DIODE	1	
F1101	K5D162BK0005	FUSE	1	⚠
IC1150	C0DACZH00001	IC	1	
IC1200	UPC1093J	IC	1	C0DAEMC00002
IC1302	C0DBZHG00012	IC	1	
IC1303	C0DBZHE00014	IC	1	
IC1401	C0DBEKG00003	IC	1	
IC1410	C0DBAJG00005	IC	1	
IP1400	K5H202200005	IC PROTECTOR	1	⚠
L1120	G0B123E00001	COIL	1	⚠
L1260	G0A100H00014	COIL 10UH	1	
L1270	G0A100H00014	COIL 10UH	1	
L1400	VLQ0655K220T	COIL 22UH	1	G0A220G00016
L1401	G0A220G00018	COIL 22UH	1	
LB1122	J0JKB0000003	COIL	1	
P1101	K2AB2H000004	AC INLET	1	⚠
P1102	VJS4357B019B	CONNECTOR(19P)	1	
P1103	K1KB15A00028	CONNECTOR(15P)	1	
P1104	K1KB10B00053	CONNECTOR(10P)	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
Q1200,01	PC123ZY2	TRANSISTOR	2	B3PBA0000078 ⚠
Q1270	B1DHED000008	TRANSISTOR	1	
QR1200	UN2212	TRANSISTOR	1	UNR2212
QR1301-04	UNR221300L	TRANSISTOR	4	
R1120	ERDS1TJ474	1W 470K	1	
R1150	ERDS2FJ6R8	1/4W 6.8	1	
R1151	ERDS2FJ562	1/4W 5.6K	1	
R1152	ERDS2FJ103	1/4W 10K	1	
R1154	ER0S2CKG5601	1/4W 5.6K	1	
R1155	ER0S2CKG2701	1/4W 2.7K	1	EROS2CKG2701
R1156	ER0S2CKG1502	1/4W 15K	1	EROS2CKG1502
R1157	EROS2TKG6800	1/4W 68	1	
R1200	ERJ6GEYG393V	1/10W 39K	1	
R1201	ERJ6GEY0R00V	1/10W 0	1	
R1204	ERJ6GEYF472	1/10W 4.7K	1	
R1206	ERJ6GEYG242	1/10W 2.4K	1	
R1207	ERJ6GEYJ103V	1/10W 10K	1	
R1208	ERJ6GEYG241	1/10W 240	1	
R1209	ERJ6GEYJ102V	1/10W 1K	1	
R1210	ERJ6GEYG362	1/10W 3.6K	1	
R1211	ERJ6GEYJ472V	1/10W 4.7K	1	
R1270	ERJ6GEYJ472V	1/10W 4.7K	1	
R1305	ERJ6GEYJ472V	1/10W 4.7K	1	
R1309	ERJ6GEYJ103V	1/10W 10K	1	
R1310	ERJ6GEY0R00V	1/10W 0	1	
R1400	ERJ6GEYJ334V	1/10W 330K	1	
R1401	ERJ6GEYG105	1/10W 1M	1	
R1402	ERJ6GEYJ103V	1/10W 10K	1	
R1403	ERJ6RBD222	1/10W 2.2K	1	
R1404	ERJ6GEYJ470V	1/10W 47	1	
R1405	ERJ6RED330	1/10W 33	1	
R1406	ERJ6GEYJ103V	1/10W 10K	1	
R1407	ERJ6RBD821	1/10W 820	1	
R1408,09	D1BDR2200001	0.22	2	
R1410	ERJ6GEY0R00V	1/10W 0	1	
R1411	ERJ6RBD123	1/10W 12K	1	
R1412	ERJ6RBD243	1/10W 24K	1	
R1413	ERJ6GEYJ100V	1/10W 10	1	
R1414	D1BDR3300001	0.33	1	
T1150	G4D2A0000112	TRANSFORMER	1	⚠
W501,02	ERJ6GEY0R00V	1/10W 0	2	
ZA1101,02	VJR0978	EARTH ANGLE	2	K9ZZ00000424
ZA1103,04	K3GD9BB00001	FUSE HOLDER	2	
ZA1105	VJR0978	EARTH ANGLE	1	K9ZZ00000424
~	03	REP3497B		

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
B7501	CR-2032/1GUF	LITHIUM BATTERY	1	
C1502	F2A1E221A210	25V 220U	1	
C1503,04	F2A1A471A211	10V 470U	2	
C1505,06	F2A0J471A256	6.3V 470U	2	
C1507	ECJ1VB1C104K	16V 0.1U	1	
C1508	F2A0J470A012	6.3V 47U	1	
C1509	F2A1E4700048	25V 47U	1	
C1512	F2A1E4700048	25V 47U	1	
C1514	F2A1E4700048	25V 47U	1	
C1528	ECJ1VB1C104K	16V 0.1U	1	
C1530	F2A1E4700048	25V 47U	1	
C3001-04	ECJ1VC1H470J	50V 47P	4	
C3005	ECJ1VC1H560J	50V 56P	1	
C3006,07	ECUV1H390JCV	50V 39P	2	ECJ1VC1H390J
C3008	ECJ1VB1H103K	50V 0.01U	1	
C3009	ECEA0JKS470	6.3V 47U	1	
C3010	ECUV1H680JCV	50V 68P	1	ECJ1VC1H680J
C3011	ECUV1H390JCV	50V 39P	1	ECJ1VC1H390J
C3012	ECJ1VB1H103K	50V 0.01U	1	
C3013	ECEA0JKS470	6.3V 47U	1	
C3014	ECJ1VC1H220J	50V 22P	1	
C3016	ECJ1VC1H220J	50V 22P	1	
C3017	ECJ1VB1H103K	50V 0.01U	1	
C3018	ECJ1VC1H220J	50V 22P	1	
C3019,20	ECJ1VC1H330J	50V 33P	2	
C3022	ECJ1VB1H103K	50V 0.01U	1	
C3023	ECJ1VB1C104K	16V 0.1U	1	
C3024	ECEA0JKS470	6.3V 47U	1	
C3025	ECJ1VC1H102J	50V 1000P	1	
C3027	ECEA1HKS010	50V 1U	1	
C3028,29	ECJ1VB1H103K	50V 0.01U	2	
C3030	ECJ1VC1H561J	50V 560P	1	
C3031	ECJ1VB1C104K	16V 0.1U	1	
C3043	ECJ1VC1H560J	50V 56P	1	
C3044	ECJ1VB1C104K	16V 0.1U	1	
C3045	ECJ1VB0J105K	6.3V 1U	1	
C3046	ECEA0JKS470	6.3V 47U	1	
C3047	ECJ1VB1H103K	50V 0.01U	1	
C3048	ECJ1VB0J105K	6.3V 1U	1	
C3049	ECJ1VC1H150J	50V 15P	1	
C3050	ECJ1VB1C104K	16V 0.1U	1	
C3051	ECEA0JKS101	6.3V 100U	1	
C3052,53	ECEA0JKS470	6.3V 47U	2	
C3055	ECA0JM102	6.3V 1000U	1	
C3056	ECEA0JKS101	6.3V 100U	1	
C3057	ECJ1VB1C104K	16V 0.1U	1	
C3058	ECJ1VC1H560J	50V 56P	1	
C3059	ECA0JM102	6.3V 1000U	1	
C3060	ECEA0JKS101	6.3V 100U	1	
C3061	ECA0JM102	6.3V 1000U	1	
C3062	ECEA0JKS101	6.3V 100U	1	
C3063,64	ECEA0JKS331	6.3V 330U	2	
C3066	ECJ1VB1H102K	50V 1000P	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C3067	ECEA1HSN010	50V 1U	1	
C3068	ECEA0JKS220	6.3V 22U	1	
C3069	ECJ1VB1H103K	50V 0.01U	1	
C3070	ECJ1VB1H472K	50V 4700P	1	
C3071	ECJ1VB1H103K	50V 0.01U	1	
C3072,73	ECJ1VC1H470J	50V 47P	2	
C3074	ECJ1VC1H560J	50V 56P	1	
C3075	ECUV1H390JCV	50V 39P	1	ECJ1VC1H390J
C3076-84	ECJ1VB1H103K	50V 0.01U	9	
C3085	ECJ1VB1H473K	50V 0.047U	1	
C3086-91	ECJ1VB1H103K	50V 0.01U	6	
C3092	ECJ1VB1C104K	16V 0.1U	1	
C3093,94	ECJ1VB1H103K	50V 0.01U	2	
C3095	ECEA0JKS470	6.3V 47U	1	
C3096	ECJ1VB1C104K	16V 0.1U	1	
C3097	ECJ1VC1H220J	50V 22P	1	
C3098	ECJ1VC1H150J	50V 15P	1	
C3099	ECJ1VC1H220J	50V 22P	1	
C3100	ECJ1VB1H103K	50V 0.01U	1	
C3101,02	ECEA0JKS470	6.3V 47U	2	
C3103	ECJ1XC1H180J	50V 18P	1	ECJ1VC1H180J
C3104	ECJ1VC1H102J	50V 1000P	1	
C3901	ECJ1VB1C104K	16V 0.1U	1	
C3902	ECJ1VB1H103K	50V 0.01U	1	
C3904	ECJ1VB1H103K	50V 0.01U	1	
C3906	ECJ1VB1H103K	50V 0.01U	1	
C3907	ECJ1VB1C104K	16V 0.1U	1	
C4003	F2A1H100A236	50V 10U	1	
C4005	F2A1E470A205	25V 47U	1	
C4006	F2A1H100A236	50V 10U	1	
C4021	ECJ1VF1C104Z	16V 0.1U	1	
C4023	F2A1H100A236	50V 10U	1	
C4025	F2A1H100A236	50V 10U	1	
C4026	ECJ1VF1C104Z	16V 0.1U	1	
C4028	ECJ1VF1C104Z	16V 0.1U	1	
C4029	F2A1C102A236	16V 1000U	1	
C4030	ECJ1VF1C104Z	16V 0.1U	1	
C4033,34	F2A1E470A205	25V 47U	2	
C4037-42	F2A1H100A236	50V 10U	6	
C4043	ECJ1VF1C104Z	16V 0.1U	1	
C4052	ECJ1VF1C104Z	16V 0.1U	1	
C4055	ECJ1VF1C104Z	16V 0.1U	1	
C4056	F2A0J471A247	6.3V 470U	1	
C4057	ECUV1H680JCG	50V 68P	1	ECJ2VC1H680J
C4058,59	ECJ1VF1C104Z	16V 0.1U	2	
C4060	ECUV1H680JCG	50V 68P	1	ECJ2VC1H680J
C4061	ECJ1VF1C104Z	16V 0.1U	1	
C4062	F2A1A101A206	10V 100U	1	
C4063,64	F2A1E470A205	25V 47U	2	
C4065	ECJ1VF1C104Z	16V 0.1U	1	
C4068	ECJ1VF1C104Z	16V 0.1U	1	
C4070	F2A1A101A206	10V 100U	1	
C4072	F2A1A101A206	10V 100U	1	
C4074	ECJ1VF1C104Z	16V 0.1U	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C4076-78	ECJ1VF1C104Z	16V 0.1U	3	
C4079,80	ECJ1VC1H330J	50V 33P	2	
C4082,83	ECJ2VC1H102J	50V 1000P	2	
C4901	F2A1A101A206	10V 100U	1	
C4902	ECJ1VF1C104Z	16V 0.1U	1	
C4903	F2A0J470A179	6.3V 47U	1	
C4904	ECJ1VF1C104Z	16V 0.1U	1	
C4906	ECJ1VC1H220J	50V 22P	1	
C7404	ECJ1VB1H103K	50V 0.01U	1	
C7405	VCEA0JCB470B	6.3V 47U	1	F2A0J470A013
C7411	ECJ1VB1C104K	16V 0.1U	1	
C7412	F2A1A470A140	10V 47U	1	
C7416	ECJ1VB1H103K	50V 0.01U	1	
C7417	F2A1H1R0A147	50V 1U	1	F2A1H1R0A146
C7432,33	F2A1C100A019	16V 10U	2	
C7438	ECJ1VB1C104K	16V 0.1U	1	
C7439	VCEA0JCB470B	6.3V 47U	1	F2A0J470A013
C7502,03	ECJ1VB1H103K	50V 0.01U	2	
C7504-06	ECJ1VC1H100C	50V 10P	3	
C7507,08	ECJ1VB1H103K	50V 0.01U	2	
C7517	ECJ1VB1H103K	50V 0.01U	1	
C7518,19	ECJ1VF1C104Z	16V 0.1U	2	
C7523,24	ECJ1VB1H103K	50V 0.01U	2	
C7525	F2A1H100A146	50V 10U	1	
C7526	ECJ1VF1H104Z	50V 0.1U	1	
C7528	F2A1C221A019	16V 220U	1	
C7529	F2A0J221A016	6.3V 220U	1	
C7531	ECQB1H223KF3	50V 0.022U	1	
C7532	F2A1V470A116	35V 47U	1	
C7533	F2A1H100A146	50V 10U	1	
C7534	ECUV1H100DCV	50V 10U	1	ECJ1VC1H100D
C7535	ECJ1VF1C104Z	16V 0.1U	1	
C7536	ECJ1VC1H120J	50V 12P	1	
C7537	ECJ1VF1A105Z	10V 1U	1	
C7539	ECJ1VC1H101J	50V 100P	1	
C7543-45	ECJ1VC1H101J	50V 100P	3	
C7546	ECJ1VF1C104Z	16V 0.1U	1	
C7547,48	ECJ1VC1H030C	50V 3P	2	
C7585	ECJ1VB1H103K	50V 0.01U	1	
C7586	ECEA1CKA470	16V 47U	1	
C7587	ECJ1VB1H103K	50V 0.01U	1	
C9701,02	ECJ1VF1C104Z	16V 0.1U	2	
D3001	MA2C165001VT	DIODE	1	
D4005	MA3Z142D0RG	DIODE	1	
D7401	MA4300N-M	DIODE	1	MAZ4300NM
D7502	MAZ4240NMF	DIODE	1	
D7503	ERA22-02	DIODE	1	B0HAGM000001
D7505,06	MA2C18500E	DIODE	2	
D7507	MA4300N-M	DIODE	1	MAZ4300NM
D7513,14	B0JACE000001	DIODE	2	
DP7501	A2BD00000058	DIODE	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
IC1502	C0DBEFG00002	IC	1	
IC1504	C0DBZGG00010	IC	1	
IC1505	C0DBZHG00012	IC	1	
IC1508	C0DBZHE00014	IC	1	
IC1513	C0DBZHE00014	IC	1	
IC3002	C2BBFE000130	IC	1	
IC3003	C1AB00001735	IC	1	
IC3005	C9ZB00000377	IC	1	
IC4002	C0JBAR000285	IC	1	
IC4003	C0ABBB000118	IC	1	
IC4009	C0ABBB000118	IC	1	
IC4010	C0DBZJG00006	IC	1	
IC4011	C0DBZHG00012	IC	1	
IC4012	C0ABBB000118	IC	1	
IC7405	C0BBBB000006	IC	1	
IC7501	C2BBGF000414	IC	1	
IC7503	C0EBF0000182	IC	1	
IC7504	C0ZBZ0000732	IC	1	
IC7505	C0EBH0000263	IC	1	
IC7507	NJM2904M	IC	1	C0ABBA000021
IP7501	D4FAR4000001	IC PROTECTOR	1	⚠
JK3901	K1U822B00001	JACK,IN1/IN3	1	
JK3902	K1U412B00001	JACK,OUT	1	
JK3903	K1U407B00001	JACK,VIDEO/AUDIO OUT	1	
K7401	ERJ3GEY0R00V	1/16W 0	1	
K7504	ERJ3GEY0R00V	1/16W 0	1	
L3001	G0C120JA0019	COIL 12UH	1	
L3002	G0C220JA0019	COIL 22UH	1	
L3003,04	G0C120JA0019	COIL 12UH	2	
L3005	G0C220JA0019	COIL 22UH	1	
L3006	G0C120JA0019	COIL 12UH	1	
L3007	G0C4R7JA0019	COIL 4.7UH	1	
L3008	G0C220JA0019	COIL 22UH	1	
L3009,10	G0C4R7JA0019	COIL 4.7UH	2	
L3012	G0C4R7JA0019	COIL 4.7UH	1	
L3014	G0C120JA0019	COIL 12UH	1	
L3015,16	G0C4R7JA0019	COIL 4.7UH	2	
L3017,18	G0C120JA0019	COIL 12UH	2	
L3019	VLQ0599J6R8	COIL 6.8UH	1	G0C6R8JA0026
L3020	G0C120JA0019	COIL 12UH	1	
L3021	VLQ0599J6R8	COIL 6.8UH	1	G0C6R8JA0026
L3022,23	G0C120JA0019	COIL 12UH	2	
L4901	ELESE220KA	COIL 22UH	1	
L7501	ELESE101K	COIL 100UH	1	
L7502	G0C220JA0019	COIL 22UH	1	
LB1501-05	J0JHC0000032	COIL	5	
LB3001	VLP0323A601T	COIL	1	J0JCC0000103
LB3902	VLP0323A601T	COIL	1	J0JCC0000103
LB3904	VLP0323A601T	COIL	1	J0JCC0000103

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
LB3908-10	VLP0323A601T	COIL	3	J0JCC0000103
LB3912-18	VLP0323A601T	COIL	7	J0JCC0000103
LB4907,08	VLP0323A601T	COIL	2	J0JCC0000103
LB4911-14	VLP0323A601T	COIL	4	J0JCC0000103
LB7402,03	J0JHC0000032	COIL	2	
LB7408	J0JHC0000032	COIL	1	
LB7508	G0ZZ00001936	COIL	1	
LB9701,02	J0JHC0000032	COIL	2	
LB9703,04	ERJ3GEY0R00V	1/16W 0	2	
P7501	K1KB20B00040	CONNECTOR(20P)	1	
P7503	TJS118601T	CONNECTOR(3P)	1	K1KA03A00173
PP1501	K1KA19A00016	CONNECTOR(19P)	1	
PP1502	K1KA08A00355	CONNECTOR(8P)	1	
PP1503	K1KA15A00124	CONNECTOR(15P)	1	
PP9701-03	K1KA30A00180	CONNECTOR(30P)	3	
Q3001,02	2SB1218A	TRANSISTOR	2	
Q3003	2SA153200L	TRANSISTOR	1	
Q3004	2SB1218A	TRANSISTOR	1	
Q3005	2SD1819A0L	TRANSISTOR	1	
Q3006,07	2SB1218A	TRANSISTOR	2	
Q3008	2SD1819A0L	TRANSISTOR	1	
Q3009	2SB1218A	TRANSISTOR	1	
Q3010	2SD1819A0L	TRANSISTOR	1	
Q3011	2SC3930	TRANSISTOR	1	
Q3012	2SD1819A0L	TRANSISTOR	1	
Q3015	2SB1218A	TRANSISTOR	1	
Q4004	2SB1218A	TRANSISTOR	1	
Q4006,07	2SD132800L	TRANSISTOR	2	
Q7401	2SB1218A	TRANSISTOR	1	
Q7501	2SD1994BR1VT	TRANSISTOR	1	
Q7502	2SD0601A0L	TRANSISTOR	1	
Q7509	2SD874A	TRANSISTOR	1	2SD0874AW
Q7510,11	2SD0601A0L	TRANSISTOR	2	
QR3001	UNR521100L	TRANSISTOR	1	
QR3002	UN5213TX	TRANSISTOR	1	UNR521300L
QR3004,05	UNR521100L	TRANSISTOR	2	
QR3006-10	UN5213TX	TRANSISTOR	5	UNR521300L
QR3011	UN5113TW	TRANSISTOR	1	
QR4002-07	UNR521100L	TRANSISTOR	6	
QR4010-12	UNR521100L	TRANSISTOR	3	
QR7401	UN5213TX	TRANSISTOR	1	UNR521300L
QR7501	UN5212-TX	TRANSISTOR	1	UNR521200L
QR7504	UN5113TW	TRANSISTOR	1	
R1501	ERJ3GEY0R00V	1/16W 0	1	
R1502	ERJ3GEYJ471V	1/16W 470	1	
R1503	ECJ1VB1C104K	16V 0.1U	1	
R1515	ERDS2FJ271	1/4W 270	1	
R3001	MCR03PZHJ561	1/16W 560	1	
R3002,03	ERJ3GEYJ103V	1/16W 10K	2	D0GB103JA002

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R3004	MCR03PZHJ561	1/16W 560	1	
R3005	ERJ3GEYJ103V	1/16W 10K	1	D0GB103JA002
R3006	ERJ3GEYJ101	1/16W 100	1	D0GB101JA002
R3007	ERJ3GEYJ102V	1/16W 1K	1	
R3008	MCR03PZHJ561	1/16W 560	1	
R3009	ERJ3GEYJ103V	1/16W 10K	1	D0GB103JA002
R3010	ERJ3GEYJ101	1/16W 100	1	D0GB101JA002
R3011	ERJ3GEYJ102V	1/16W 1K	1	
R3012-14	ERJ3GEY0R00V	1/16W 0	3	
R3015,16	ERJ3GEYJ103V	1/16W 10K	2	D0GB103JA002
R3017,18	ERJ3GEYJ102V	1/16W 1K	2	
R3019	ERJ3GEYJ473V	1/16W 47K	1	D0GB473JA002
R3020	ERJ3GEYJ103V	1/16W 10K	1	D0GB103JA002
R3021	ERJ3GEYJ472V	1/16W 4.7K	1	
R3022	ERJ3GEYJ103V	1/16W 10K	1	D0GB103JA002
R3024	ERJ3GEYJ102V	1/16W 1K	1	
R3025	MCR03PZHJ561	1/16W 560	1	
R3026	ERJ3GEYJ102V	1/16W 1K	1	
R3027	ERJ3GEYJ105V	1/16W 1M	1	
R3028	ERJ3GEYJ101	1/16W 100	1	D0GB101JA002
R3029	ERJ3GEYJ103V	1/16W 10K	1	D0GB103JA002
R3030	ERJ3GEYJ473V	1/16W 47K	1	D0GB473JA002
R3032,33	ERJ3GEYJ103V	1/16W 10K	2	D0GB103JA002
R3039	ERJ3GEYJ221V	1/16W 220	1	
R3040	ERJ3GEYJ222V	1/16W 2.2K	1	D0GB222JA002
R3041	ERJ3GEYJ473V	1/16W 47K	1	D0GB473JA002
R3042	ERJ3GEYJ101	1/16W 100	1	D0GB101JA002
R3043	ERJ3GEYJ102V	1/16W 1K	1	
R3044,45	ERJ3GEYJ151V	1/16W 150	2	
R3046	ERJ3GEYJ222V	1/16W 2.2K	1	D0GB222JA002
R3047	ERJ3GEYJ101	1/16W 100	1	D0GB101JA002
R3048	ERJ3GEYJ102V	1/16W 1K	1	
R3049,50	ERJ3GEYJ151V	1/16W 150	2	
R3051	ERJ3GEYJ222V	1/16W 2.2K	1	D0GB222JA002
R3052	MCR03PZHJ561	1/16W 560	1	
R3053	ERJ3GEYJ103V	1/16W 10K	1	D0GB103JA002
R3054	ERJ3GEYJ104	1/16W 100K	1	
R3055	ERJ3GEYJ102V	1/16W 1K	1	
R3056	ERJ3GEYJ222V	1/16W 2.2K	1	D0GB222JA002
R3057	ERJ3GEYJ471V	1/16W 470	1	
R3058	ERJ3GEYJ103V	1/16W 10K	1	D0GB103JA002
R3060	ERJ3GEYJ103V	1/16W 10K	1	D0GB103JA002
R3061	ERJ3GEYJ152V	1/16W 1.5K	1	
R3062	ERJ3GEYJ102V	1/16W 1K	1	
R3063	ERJ3GEY0R00V	1/16W 0	1	
R3064	ERJ3GEYJ102V	1/16W 1K	1	
R3065,66	ERJ3GEY0R00V	1/16W 0	2	
R3067	ERJ3GEYJ330V	1/16W 33	1	D0GB330JA002
R3068	ERJ3GEY0R00V	1/16W 0	1	
R3070,71	ERJ3GEY0R00V	1/16W 0	2	
R3072	ERJ3GEYJ102V	1/16W 1K	1	
R3073,74	ERJ3GEYJ221V	1/16W 220	2	
R3075,76	ERJ3GEY0R00V	1/16W 0	2	
R3077	ERJ3GEYJ102V	1/16W 1K	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R3080	ERJ3GEY0R00V	1/16W 0	1	
R3084	ERJ3GEYJ912V	1/16W 9.1K	1	
R3086	ERJ3GEY0R00V	1/16W 0	1	
R3087	ERJ3GEYJ103V	1/16W 10K	1	D0GB103JA002
R3096	ERJ3GEYJ271V	1/16W 270	1	
R3099	ERJ3GEYJ222V	1/16W 2.2K	1	D0GB222JA002
R3100	ERJ3GEYJ330V	1/16W 33	1	D0GB330JA002
R3102,03	ERJ3GEYJ472V	1/16W 4.7K	2	
R3106	ERJ3GEYJ102V	1/16W 1K	1	
R3107	ERJ3GEYJ473V	1/16W 47K	1	D0GB473JA002
R3108	ERJ3GEYJ103V	1/16W 10K	1	D0GB103JA002
R3901-04	ERJ3GEYJ750	1/16W 75	4	
R3907,08	ERJ3GEYJ750	1/16W 75	2	
R3920,21	ERJ3GEYJ750	1/16W 75	2	
R3923,24	ERJ3GEYJ750	1/16W 75	2	
R3926,27	ERJ3GEYJ750	1/16W 75	2	
R4002	ERJ3GEYJ103V	1/16W 10K	1	D0GB103JA002
R4003	ERJ3GEYJ333V	1/16W 33K	1	D0GB333JA002
R4004	ERJ3GEYJ562V	1/16W 5.6K	1	D0GB562JA002
R4006	ERJ3GEYJ333V	1/16W 33K	1	D0GB333JA002
R4008	ERJ3GEYJ103V	1/16W 10K	1	D0GB103JA002
R4011	ERJ3GEYJ683V	1/16W 68K	1	D0GB683JA002
R4013	ERJ3GEYJ183V	1/16W 18K	1	D0GB183JA002
R4014	ERJ3GEYJ103V	1/16W 10K	1	D0GB103JA002
R4015	ERJ3GEYJ683V	1/16W 68K	1	D0GB683JA002
R4017	ERJ3GEYJ103V	1/16W 10K	1	D0GB103JA002
R4021,22	ERJ3GEY0R00V	1/16W 0	2	
R4024	ERJ3GEYJ562V	1/16W 5.6K	1	D0GB562JA002
R4026	ERJ3GEYJ183V	1/16W 18K	1	D0GB183JA002
R4030	ERJ3GEYJ103V	1/16W 10K	1	D0GB103JA002
R4037,38	ERJ3GEYJ184V	1/16W 180K	2	
R4040-43	ERJ3GEYJ184V	1/16W 180K	4	
R4044,45	ERJ3GEY0R00V	1/16W 0	2	
R4046,47	JAR0816P752D	1/16W 7.5K	2	D0HB752ZA002
R4048	ERJ3GEYJ184V	1/16W 180K	1	
R4049-54	ERJ3GEYJ683V	1/16W 68K	6	D0GB683JA002
R4055	JAR0816P153D	1/16W 15K	1	D0HB153ZA002
R4057	JAR0816P153D	1/16W 15K	1	D0HB153ZA002
R4060-65	ERJ3GEYJ183V	1/16W 18K	6	D0GB183JA002
R4066,67	JAR0816P103D	1/16W 10K	2	D0HB103ZA002
R4068	ERJ3GEYJ184V	1/16W 180K	1	
R4071	ERJ3GEYJ473V	1/16W 47K	1	D0GB473JA002
R4072,73	ERJ3GEYJ563V	1/16W 56K	2	
R4074	ERJ3GEYJ473V	1/16W 47K	1	D0GB473JA002
R4076	ERJ3GEYJ821V	1/16W 820	1	
R4078,79	ERJ3GEYJ272V	1/16W 2.7K	2	
R4081	ERJ3GEYJ821V	1/16W 820	1	
R4090	ERJ3GEYJ221V	1/16W 220	1	
R4093	ERJ3GEYJ221V	1/16W 220	1	
R4901	ERJ3GEY0R00V	1/16W 0	1	
R4903	ERJ3GEY0R00V	1/16W 0	1	
R7403,04	ERJ3GEYJ101	1/16W 100	2	D0GB101JA002
R7405	ERJ3GEYJ222V	1/16W 2.2K	1	D0GB222JA002
R7406,07	ERJ3GEYJ101	1/16W 100	2	D0GB101JA002

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R7408,09	ERJ3GEY0R00V	1/16W 0	2	
R7418,19	ERG2SJ471E	2W 470	2	
R7445	ERJ3RBD222V	1/16W 2.2K	1	
R7446	ERJ3RBD153	1/16W 15K	1	
R7447	ERJ3RBD102V	1/16W 1K	1	
R7448	ERJ3RBD222V	1/16W 2.2K	1	
R7451	ERJ3RBD133V	116W 13K	1	
R7452	ERJ3GEYJ681V	1/16W 680	1	D0GB681JA002
R7501	ERJ3GEYJ103V	1/16W 10K	1	D0GB103JA002
R7502	ERJ3GEYJ683V	1/16W 68K	1	D0GB683JA002
R7503	ERJ3GEYJ103V	1/16W 10K	1	D0GB103JA002
R7504	ERJ3GEYJ683V	1/16W 68K	1	D0GB683JA002
R7505	ERJ3GEYJ472V	1/16W 4.7K	1	
R7509	ERJ3GEYJ101	1/16W 100	1	D0GB101JA002
R7513,14	ERJ3GEYJ221V	1/16W 220	2	
R7515,16	ERJ3GEYJ473V	1/16W 47K	2	D0GB473JA002
R7518	ERDS2FJ331	1/4W 330	1	
R7519	ERDS2FJ3R9	1/4W 3.9	1	
R7521	ERJ3GEYJ332V	1/16W 3.3K	1	D0GB332JA002
R7522,23	ERJ3GEYJ104	1/16W 100K	2	
R7524	ERJ3GEYJ101	1/16W 100	1	D0GB101JA002
R7525	ERJ3GEYJ473V	1/16W 47K	1	D0GB473JA002
R7526,27	ERJ3GEYJ101	1/16W 100	2	D0GB101JA002
R7528	ERJ3GEYJ221V	1/16W 220	1	
R7529-31	ERJ3RBD822	1/16W 8.2K	3	
R7532-34	ERJ3GEYJ101	1/16W 100	3	D0GB101JA002
R7536	ERJ3GEYJ472V	1/16W 4.7K	1	
R7537	ERJ3GEYJ223V	1/16W 22K	1	D0GB223JA002
R7540	ERJ3GEYJ101	1/16W 100	1	D0GB101JA002
R7541-43	ERJ3GEYJ473V	1/16W 47K	3	D0GB473JA002
R7544	ERJ3GEYJ221V	1/16W 220	1	
R7545	ERJ3GEYD153V	1/16W 15K	1	D0HB153ZA002
R7546	ERJ3GEYJ473V	1/16W 47K	1	D0GB473JA002
R7547	ERJ3GEYJ222V	1/16W 2.2K	1	D0GB222JA002
R7548,49	ERJ3GEYJ101	1/16W 100	2	D0GB101JA002
R7550	ERJ3GEYD153V	1/16W 15K	1	D0HB153ZA002
R7554,55	ERJ3GEYJ473V	1/16W 47K	2	D0GB473JA002
R7556	ERJ3GEYJ683V	1/16W 68K	1	D0GB683JA002
R7557	ERJ3GEY0R00V	1/16W 0	1	
R7558,59	ERJ3GEYJ101	1/16W 100	2	D0GB101JA002
R7563	ERJ3GEYJ473V	1/16W 47K	1	D0GB473JA002
R7564	ERJ3GEYJ102V	1/16W 1K	1	
R7566-73	ERJ3GEYJ683V	1/16W 68K	8	D0GB683JA002
R7576-78	ERJ3GEYJ104	1/16W 100K	3	
R7580-82	ERJ3GEYJ104	1/16W 100K	3	
R7586	ERJ3GEYJ101	1/16W 100	1	D0GB101JA002
R7587	ERJ3GEYJ221V	1/16W 220	1	
R7588	ERJ3GEYJ473V	1/16W 47K	1	D0GB473JA002
R7590	ERJ3GEYJ101	1/16W 100	1	D0GB101JA002
R7600	ERJ3GEYJ103V	1/16W 10K	1	D0GB103JA002
R7601	ERJ3GEYJ821V	1/16W 820	1	
R7602	ERJ3GEYJ183V	1/16W 18K	1	D0GB183JA002
T7501	ETS13TB119AP	TRANSFORMER	1	⚠

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
TU7401	ENGD6201D	TUNER PACK	1	
W501-08	ERJ3GEY0R00V	1/16W 0	8	
W510-20	ERJ3GEY0R00V	1/16W 0	11	
W522-25	ERJ3GEY0R00V	1/16W 0	4	
X3001	H0D800400016	CRYSTAL OSCILLATOR	1	
X7501	H0A327200082	CRYSTAL OSCILLATOR	1	
X7502	H0D419400020	CRYSTAL OSCILLATOR	1	
~	04	REP3496B/REP3496BC/REP3496BD		
C3201	EEVHB0J220R	6.3V 22U	1	
C3202	ECJ1VB1C104K	16V 0.1U	1	
C3203	ECJ1VB1H222K	50V 2200P	1	
C3205	ECJ1VB1C104K	16V 0.1U	1	
C3207	ECJ1VB1H103K	50V 0.01U	1	
C3208	ECJ1VB1C104K	16V 0.1U	1	
C3211	ECJ1VF1C104Z	16V 0.1U	1	
C3213	EEE0JA220SR	6.3V 22U	1	
C3216	ECJ1VB1H103K	50V 0.01U	1	
C3217-26	ECJ1VB1C104K	16V 0.1U	10	
C3227	EEE0JA101SP	6.3V 100U	1	
C3229,30	ECJ1VB1H102K	50V 1000P	2	
C3231	ECJ1VB1H103K	50V 0.01U	1	
C4402	ECJ1VF1C104Z	16V 0.1U	1	
C4403	F2G0J331A015	6.3V 330U	1	
C4406	EEE0JA220SR	6.3V 22U	1	
C4407	ECJ1VF1C104Z	16V 0.1U	1	
C4408	EEE0JA101SP	6.3V 100U	1	
C4409-14	ECJ1VB1H102K	50V 1000P	6	
C4415	EEE1EA4R7SR	25V 4.7U	1	
C4416	ECJ1VF1C104Z	16V 0.1U	1	
C4417	ECST1AY106R	10V 10U	1	
C4418,19	ECJ1VF1C104Z	16V 0.1U	2	
C6001	ECJ1VF1C104Z	16V 0.1U	1	
C9001	EEE0JA470SR	6.3V 47U	1	
C9003	EEE0JA470SR	6.3V 47U	1	
C9004	ECJ1VF1C104Z	16V 0.1U	1	
C9005	EEE0JA470SR	6.3V 47U	1	
C9007	F1J0J106A014	6.3V 10U	1	
C9011	EEE0JA470SR	6.3V 47U	1	
C9013	EEE0JA470SR	6.3V 47U	1	
C9014,15	ECJ1VC1H470J	50V 47P	2	
C50007	ECJ1VB1C104K	16V 0.1U	1	
C50008,09	ECJ1VB0J105K	6.3V 1U	2	
C50010	EEE0JA220SR	6.3V 22U	1	
C50013,14	ECJ1VF1C104Z	16V 0.1U	2	
C50015	EEE0JA220SR	6.3V 22U	1	
C50016	ECJ1VF1C104Z	16V 0.1U	1	
C50018	EEE0JA101SP	6.3V 100U	1	
C50025	ECJ1VF1C104Z	16V 0.1U	1	
C50026,27	EEE1CA100SR	16V 10U	2	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C50028	ECJ1VF1C104Z	16V 0.1U	1	
D3201,02	MA3S132E0L	DIODE	2	
D3203,04	MA2ZV0100L	DIODE	2	
D9001	MA3Z142K0LG	DIODE	1	
FL3201	F1H0J1050018	FILTER	1	
FL3205-13	F1H0J1050018	FILTER	9	
FL3216	F1H0J1050018	FILTER	1	
FL3218	F1H0J1050018	FILTER	1	
FL3220	F1H0J1050018	FILTER	1	
FL3225	F1H0J1050018	FILTER	1	
FL3401-06	F1H0J1050018	FILTER	6	
FL3409-19	F1H0J1050018	FILTER	11	
FL3421,22	F1H0J1050018	FILTER	2	
FL3425	F1H0J1050018	FILTER	1	
FL3428	F1H0J1050018	FILTER	1	
FL4401	F1H0J1050018	FILTER	1	
FL6001-06	F1H0J1050018	FILTER	6	
FL6009-13	F1H0J1050018	FILTER	5	
FL6701-03	F1H0J1050018	FILTER	3	
FL9004	F1H0J1050018	FILTER	1	
FL9012,13	F1H0J1050018	FILTER	2	
FL9016	F1H0J1050018	FILTER	1	
FL9020	F1H0J1050018	FILTER	1	
FL9022	F1H0J1050018	FILTER	1	
FL50001	F1H0J1050018	FILTER	1	
FL50002	F1H0J1050018	FILTER	1	
FL50005	F1H0J1050018	FILTER	1	
FL50006	F1H0J1050018	FILTER	1	
FL50007	F1H0J1050018	FILTER	1	
FL50008	F1H0J1050018	FILTER	1	
FL50009	F1H0J1050018	FILTER	1	
FL50010	F1H0J1050018	FILTER	1	
FL50011	F1H0J1050018	FILTER	1	
FL50012	F1H0J1050018	FILTER	1	
FL50013	F1H0J1050018	FILTER	1	
FL50014	F1H0J1050018	FILTER	1	
FL50016	F1H0J1050018	FILTER	1	
FL50017	F1H0J1050018	FILTER	1	
FL50018	F1H0J1050018	FILTER	1	
FL50019	F1H0J1050018	FILTER	1	
FL50020	F1H0J1050018	FILTER	1	
FL50021	F1H0J1050018	FILTER	1	
FL50023	F1H0J1050018	FILTER	1	
FL50025	F1H0J1050018	FILTER	1	
FL50028	F1H0J1050018	FILTER	1	
IC3201	C3ABMG000103	IC	1	
IC3202	C1ZBZ0002277	IC	1	
IC3203	MN673744	IC	1	
IC3204,05	C0JBAB000474	IC	2	
IC3401	C3ABPJ000018	IC	1	
IC3402	MN85572	IC	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
IC3403,04	C3ABQG000007	IC	2	
IC3406	MN85620GL	IC	1	
IC4402	C0ABBB000105	IC	1	
IC4403	C0FBAK000008	IC	1	
IC6001	C0EBE0000130	IC	1	
IC6002	C3ABQG000043	IC	1	
IC6004	MN103E0500YD	IC	1	
IC6006	C3CBKD000119	IC	1	
IC6007	74LCX16244MT	IC	1	C0JBAZ001475
IC6701	C1ZBZ0002255	IC	1	
IC6702	C0JBAB000474	IC	1	
IC6703	REP3496B	IC	1	(P) DIGITAL P.C.B.
IC6703	REP3496BC	IC	1	(PL) DIGITAL P.C.B.
IC6703	REP3496BD	IC	1	(PC) DIGITAL P.C.B.
IC9001	C0DBZFE00003	IC	1	
IC50001	C1DB00000895	IC	1	
IC50002	C3ABPG000063	IC	1	
IC50003	MN677551NA	IC	1	
IC50004	C3ABPG000063	IC	1	
IC50005	C0JBAR000332	IC	1	
IC50006	C0JBAB000474	IC	1	
IC50010	C0FBBK000035	IC	1	
IC50011	C0CBCBD00002	IC	1	
IC50013	C0JBAD000107	IC	1	
IC50014	C0JBAF000206	IC	1	
IC50015	C0CBCBD00002	IC	1	
LB3201-05	J0JHC0000032	COIL	5	
LB3401,02	J0JHC0000032	COIL	2	
LB4402,03	J0JGC0000020	COIL	2	
LB9001	J0JHC0000032	COIL	1	
LB9003	J0JHC0000045	COIL	1	
LB9005	J0JHC0000032	COIL	1	
LB9006	J0JHC0000045	COIL	1	
LB9009	J0JHC0000032	COIL	1	
LB9012	J0JHC0000045	COIL	1	
LB9013,14	J0JHC0000032	COIL	2	
LB9015,16	ERJ3GEY0R00V	1/16W 0	2	
LB9020,21	VLP0323A601T	COIL	2	J0JCC0000103
LB9038	VLP0323A601T	COIL	1	J0JCC0000103
LB50001	J0JHC0000032	COIL	1	
LB50003	ERJ3GEY0R00V	1/16W 0	1	
LB50004	J0JHC0000032	COIL	1	
LB50005	J0JHC0000032	COIL	1	
LB50006	J0JGC0000020	COIL	1	
P3401	K1MN40A00018	CONNECTOR(40P)	1	
P6001	K1KA06A00328	CONNECTOR(6P)	1	
P9001-03	K1KB30A00135	CONNECTOR(30P)	3	
Q3201	2SB1218A	TRANSISTOR	1	
Q3202	2SD1819A0L	TRANSISTOR	1	
Q6702-04	2SD0601A0L	TRANSISTOR	3	
Q50001-05	2SB1218A	TRANSISTOR	5	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
QR3401	UN521L	TRANSISTOR	1	UNR521L
QR3402,03	UN5213TX	TRANSISTOR	2	UNR521300L
QR9001	UN5111	TRANSISTOR	1	UNR5111
QR9005	UN5213TX	TRANSISTOR	1	UNR521300L
R3202	ERJ3GEY0R00V	1/16W 0	1	
R3204	ERJ3GEYJ103V	1/16W 10K	1	D0GB103JA002
R3205	ERJ3GEYJ622V	1/16W 6.2K	1	
R3206	ERJ3GEYJ103V	1/16W 10K	1	D0GB103JA002
R3211,12	ERJ3GEYJ223V	1/16W 22K	2	D0GB223JA002
R3216	ERJ3GEYJ103V	1/16W 10K	1	D0GB103JA002
R3217,18	ERJ3GEYJ220V	1/16W 22	2	
R3219	ERJ3GEYJ562V	1/16W 5.6K	1	D0GB562JA002
R3220,21	ERJ3RBD682V	1/16W 6.8K	2	
R3222	ERJ3GEYJ104	1/16W 100K	1	
R3223	ERJ3GEYJ103V	1/16W 10K	1	D0GB103JA002
R3224	ERJ3GEYJ102V	1/16W 1K	1	
R3226	ERJ3GEY0R00V	1/16W 0	1	
R3232	ERJ3GEYJ220V	1/16W 22	1	
R3233	ERJ3GEY0R00V	1/16W 0	1	
R3237,38	ERJ3GEY0R00V	1/16W 0	2	
R3239	ERJ3GEYJ104	1/16W 100K	1	
R3240	ERJ3GEYJ105V	1/16W 1M	1	
R3241	ERJ3GEYJ681V	1/16W 680	1	D0GB681JA002
R3242	ERJ3GEYJ104	1/16W 100K	1	
R3401	ERJ3GEYJ220V	1/16W 22	1	
R3403	ERJ3GEY0R00V	1/16W 0	1	
R3406	ERJ3GEYJ220V	1/16W 22	1	
R3407,08	ERJ3GEYJ820V	1/16W 82	2	
R3409	ERJ3GEYJ102V	1/16W 1K	1	
R3410	ERJ3GEYJ562V	1/16W 5.6K	1	D0GB562JA002
R3411	ERJ3GEYJ103V	1/16W 10K	1	D0GB103JA002
R3412	ERJ3GEYJ332V	1/16W 3.3K	1	D0GB332JA002
R3413,14	ERJ3GEYJ103V	1/16W 10K	2	D0GB103JA002
R3415,16	ERJ3GEYJ220V	1/16W 22	2	
R3419	ERJ3GEYJ220V	1/16W 22	1	
R3420	ERJ3GEYJ105V	1/16W 1M	1	
R3422-24	ERJ3GEYJ220V	1/16W 22	3	
R3425	ERJ3GEY0R00V	1/16W 0	1	
R3426	ERJ3GEYJ220V	1/16W 22	1	
R3427	ERJ3GEY0R00V	1/16W 0	1	
R4403,04	ERJ3RBD103V	1/16W 10K	2	
R4405,06	ERJ3RBD682V	1/16W 6.8K	2	
R4407,08	ERJ3RBD103V	1/16W 10K	2	
R4411	ERJ3GEYJ221V	1/16W 220	1	
R4412-15	ERJ3GEY0R00V	1/16W 0	4	
R6001,02	ERJ3GEYJ332V	1/16W 3.3K	2	D0GB332JA002
R6003,04	ERJ3GEYJ222V	1/16W 2.2K	2	D0GB222JA002
R6005	ERJ3GEYJ333V	1/16W 33K	1	D0GB333JA002
R6007-09	ERJ3GEYJ470V	1/16W 47	3	
R6010	ERJ3GEYJ102V	1/16W 1K	1	
R6011	ERJ3GEYJ103V	1/16W 10K	1	D0GB103JA002
R6013,14	ERJ3GEYJ330V	1/16W 33	2	D0GB330JA002

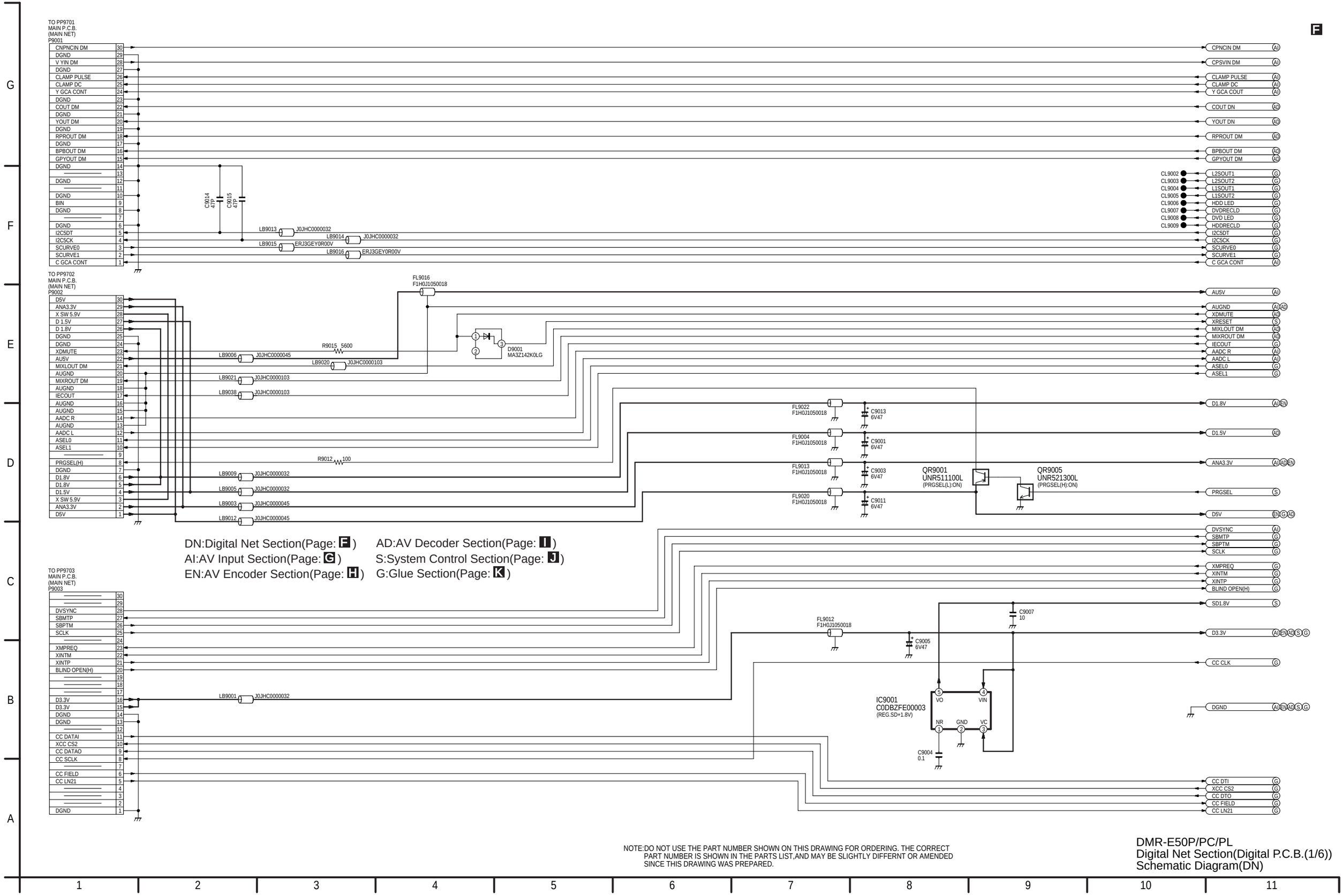
Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R6015	ERJ3GEYJ105V	1/16W 1M	1	
R6016	ERJ3GEYJ103V	1/16W 10K	1	D0GB103JA002
R6017	ERJ3GEYJ470V	1/16W 47	1	
R6019	ERJ3GEYJ333V	1/16W 33K	1	D0GB333JA002
R6020	ERJ3GEYJ103V	1/16W 10K	1	D0GB103JA002
R6021	ERJ3GEYJ330V	1/16W 33	1	D0GB330JA002
R6022	ERJ3GEYJ221V	1/16W 220	1	
R6024	ERJ3GEY0R00V	1/16W 0	1	
R6701,02	ERJ3GEYJ332V	1/16W 3.3K	2	D0GB332JA002
R6704,05	ERJ3GEYJ470V	1/16W 47	2	
R6706	ERJ3GEYJ333V	1/16W 33K	1	D0GB333JA002
R6707	ERJ3GEYJ104	1/16W 100K	1	
R6708	ERJ3GEY0R00V	1/16W 0	1	
R6709-18	ERJ3GEYJ470V	1/16W 47	10	
R6719	ERJ3GEYJ333V	1/16W 33K	1	D0GB333JA002
R6720,21	ERJ3GEYJ470V	1/16W 47	2	
R6722	ERJ3GEYJ103V	1/16W 10K	1	D0GB103JA002
R6723,24	ERJ3GEYJ470V	1/16W 47	2	
R6728	ERJ3GEYJ104	1/16W 100K	1	
R6730	ERJ3GEYJ102V	1/16W 1K	1	
R6739	ERJ3GEYJ470V	1/16W 47	1	
R6742	ERJ3GEYJ103V	1/16W 10K	1	D0GB103JA002
R6745	ERJ3GEYJ470V	1/16W 47	1	
R6746	ERJ3GEY0R00V	1/16W 0	1	
R6748	ERJ3GEYJ103V	1/16W 10K	1	D0GB103JA002
R6759	ERJ3GEYJ103V	1/16W 10K	1	D0GB103JA002
R6761	ERJ3GEYJ222V	1/16W 2.2K	1	D0GB222JA002
R9012	ERJ3GEYJ101	1/16W 100	1	D0GB101JA002
R9015	ERJ3GEYJ562V	1/16W 5.6K	1	D0GB562JA002
R50001	ERJ3GEYJ220V	1/16W 22	1	
R50002-04	ERJ3GEYJ470V	1/16W 47	3	
R50005,06	ERJ3GEYJ103V	1/16W 10K	2	D0GB103JA002
R50007	ERJ3GEYJ220V	1/16W 22	1	
R50008-10	ERJ3GEYJ470V	1/16W 47	3	
R50012	ERJ3GEY0R00V	1/16W 0	1	
R50013	ERJ3RBD153	1/16W 15K	1	
R50014	ERJ3GEYJ820V	1/16W 82	1	
R50015	ERJ3RBD153	1/16W 15K	1	
R50016	ERJ3GEYJ470V	1/16W 47	1	
R50017	ERJ3GEYJ390	1/16W 39	1	
R50018	ERJ3GEY0R00V	1/16W 0	1	
R50021	ERJ3GEYJ220V	1/16W 22	1	
R50022	ERJ3GEYJ102V	1/16W 1K	1	
R50023	ERJ3GEYJ330V	1/16W 33	1	D0GB330JA002
R50024	ERJ3GEY0R00V	1/16W 0	1	
R50025	ERJ3RED750V	1/16W 75	1	
R50026	ERJ3GEYJ102V	1/16W 1K	1	
R50027	ERJ3GEYJ330V	1/16W 33	1	D0GB330JA002
R50030	ERJ3RED750V	1/16W 75	1	
R50031	ERJ3GEYJ102V	1/16W 1K	1	
R50032	ERJ3GEYJ330V	1/16W 33	1	D0GB330JA002
R50033	ERJ3GEY0R00V	1/16W 0	1	
R50034	ERJ3RED360V	1/16W 36	1	
R50035	ERJ3GEYJ102V	1/16W 1K	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R50036	ERJ3GEYJ330V	1/16W 33	1	D0GB330JA002
R50037	ERJ3GEY0R00V	1/16W 0	1	
R50038	ERJ3RED360V	1/16W 36	1	
R50039	ERJ3GEYJ102V	1/16W 1K	1	
R50040	ERJ3GEYJ330V	1/16W 33	1	D0GB330JA002
R50041	ERJ3GEY0R00V	1/16W 0	1	
R50042	ERJ3RED750V	1/16W 75	1	
R50043	ERJ3RBD273V	1/16W 27K	1	
R50044-47	ERJ3GEY0R00V	1/16W 0	4	
R50048	ERJ3RBD182V	1/16W 1.8K	1	
R50049	ERJ3RBD223	1/16W 22K	1	
R50052	ERJ3GEY0R00V	1/16W 0	1	
R50053-55	ERJ3GEYJ470V	1/16W 47	3	
R50058	ERJ3GEYJ220V	1/16W 22	1	
R50060	ERJ3GEY0R00V	1/16W 0	1	
RA3201-04	D1H82204A024	RESISTOR-RESISTOR	4	
RA3205-08	D1H83304A024	RESISTOR-RESISTOR	4	
RA3209,10	D1H82204A024	RESISTOR-RESISTOR	2	
RA3213,14	D1H82204A024	RESISTOR-RESISTOR	2	
RA3401-16	D1H82204A024	RESISTOR-RESISTOR	16	
RA3419-24	D1H81034A024	RESISTOR-RESISTOR	6	
RA3425,26	D1H82204A024	RESISTOR-RESISTOR	2	
RA3433	D1H82204A024	RESISTOR-RESISTOR	1	
RA3435,36	D1H82204A024	RESISTOR-RESISTOR	2	
RA3439-41	D1H82204A024	RESISTOR-RESISTOR	3	
RA50009	D1H82204A024	RESISTOR-RESISTOR	1	
RA50010	D1H82204A024	RESISTOR-RESISTOR	1	
RA50011	D1H82204A024	RESISTOR-RESISTOR	1	
RA50012	D1H82204A024	RESISTOR-RESISTOR	1	
RA50013	D1H82204A024	RESISTOR-RESISTOR	1	
RA50014	D1H82204A024	RESISTOR-RESISTOR	1	
RA50015	D1H82204A024	RESISTOR-RESISTOR	1	
RA50016	D1H82204A024	RESISTOR-RESISTOR	1	
RA50017	D1H81034A024	RESISTOR-RESISTOR	1	
RA50018	D1H82204A024	RESISTOR-RESISTOR	1	
RA50019	D1H82204A024	RESISTOR-RESISTOR	1	
RA50020	D1H82204A024	RESISTOR-RESISTOR	1	
RA50021	D1H82204A024	RESISTOR-RESISTOR	1	
RA50022	D1H82204A024	RESISTOR-RESISTOR	1	
RA50023	D1H82204A024	RESISTOR-RESISTOR	1	
RA50024	D1H82204A024	RESISTOR-RESISTOR	1	
RA50025	D1H82204A024	RESISTOR-RESISTOR	1	
RA50026	D1H84704A024	RESISTOR-RESISTOR	1	
RA50027	D1H84704A024	RESISTOR-RESISTOR	1	
RA50028	D1H84704A024	RESISTOR-RESISTOR	1	
RA50029	D1H84704A024	RESISTOR-RESISTOR	1	
RX6001,02	D1H83334A024	RESISTOR-RESISTOR	2	
RX6003-05	D1H83324A024	RESISTOR-RESISTOR	3	
RX6006	D1H81034A024	RESISTOR-RESISTOR	1	
RX6007,08	D1H83304A024	RESISTOR-RESISTOR	2	
RX6009-12	D1H84704A024	RESISTOR-RESISTOR	4	
RX6013-17	D1H83304A024	RESISTOR-RESISTOR	5	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
RX6018	D1H84704A024	RESISTOR-RESISTOR	1	
RX6019	D1H83304A024	RESISTOR-RESISTOR	1	
RX6020	D1H84704A024	RESISTOR-RESISTOR	1	
RX6021	D1H83304A024	RESISTOR-RESISTOR	1	
RX6022	D1H84704A024	RESISTOR-RESISTOR	1	
RX6025	D1H83304A024	RESISTOR-RESISTOR	1	
RX6026	D1H84704A024	RESISTOR-RESISTOR	1	
RX6027	D1H81034A024	RESISTOR-RESISTOR	1	
RX6030-33	D1H84704A024	RESISTOR-RESISTOR	4	
RX6034-48	D1H83304A024	RESISTOR-RESISTOR	15	
RX6701,02	D1H83324A024	RESISTOR-RESISTOR	2	
RX6703	D1H81034A024	RESISTOR-RESISTOR	1	
RX6704	D1H84724A024	RESISTOR-RESISTOR	1	
RX6705	D1H81034A024	RESISTOR-RESISTOR	1	
RX6706-13	D1H84704A024	RESISTOR-RESISTOR	8	
RX6714	D1H81034A024	RESISTOR-RESISTOR	1	
RX6715-19	D1H84704A024	RESISTOR-RESISTOR	5	
RX6720	D1H81034A024	RESISTOR-RESISTOR	1	
RX6721-28	D1H84704A024	RESISTOR-RESISTOR	8	
RX6729	D1H83334A024	RESISTOR-RESISTOR	1	
RX6730	D1H84704A024	RESISTOR-RESISTOR	1	
RX6731	D1H82224A024	RESISTOR-RESISTOR	1	
RX6732	D1H84704A024	RESISTOR-RESISTOR	1	
RX6733	D1H83334A024	RESISTOR-RESISTOR	1	
RX6735-38	D1H84704A024	RESISTOR-RESISTOR	4	
RX6739,40	D1H83334A024	RESISTOR-RESISTOR	2	
RX6741-44	D1H83324A024	RESISTOR-RESISTOR	4	
RX6745	D1H83334A024	RESISTOR-RESISTOR	1	
RX6746	D1H81034A024	RESISTOR-RESISTOR	1	
RX6747	D1H83324A024	RESISTOR-RESISTOR	1	
RX6748,49	D1H84724A024	RESISTOR-RESISTOR	2	
X3202	H0J540500006	CRYSTAL OSCILLATOR	1	
X3401	H2D400500001	CRYSTAL OSCILLATOR	1	
X6001	H2D330500001	CRYSTAL OSCILLATOR	1	
~	05	REP3528AB		
C7001	ECJ1VF1A105Z	10V 1U	1	
C7003	ECJ1VF1C104Z	16V 0.1U	1	
C7004	ECJ1VB1H103K	50V 0.01U	1	
IR7001	PNA4618M13VT	REMOTE SENSOR	1	
JK7001	K1U413A00005	JACK,S-VIDEO IN	1	
K7002	ERJ3GEY0R00V	1/16W 0	1	
LB7001-05	VLP0323A601T	COIL	5	J0JCC0000103
P7001	K1KA20B00132	CONNECTOR(20P)	1	
R7002	ERJ3GEYJ102V	1/16W 1K	1	
R7008-10	ERJ3GEYJ750	1/16W 75	3	

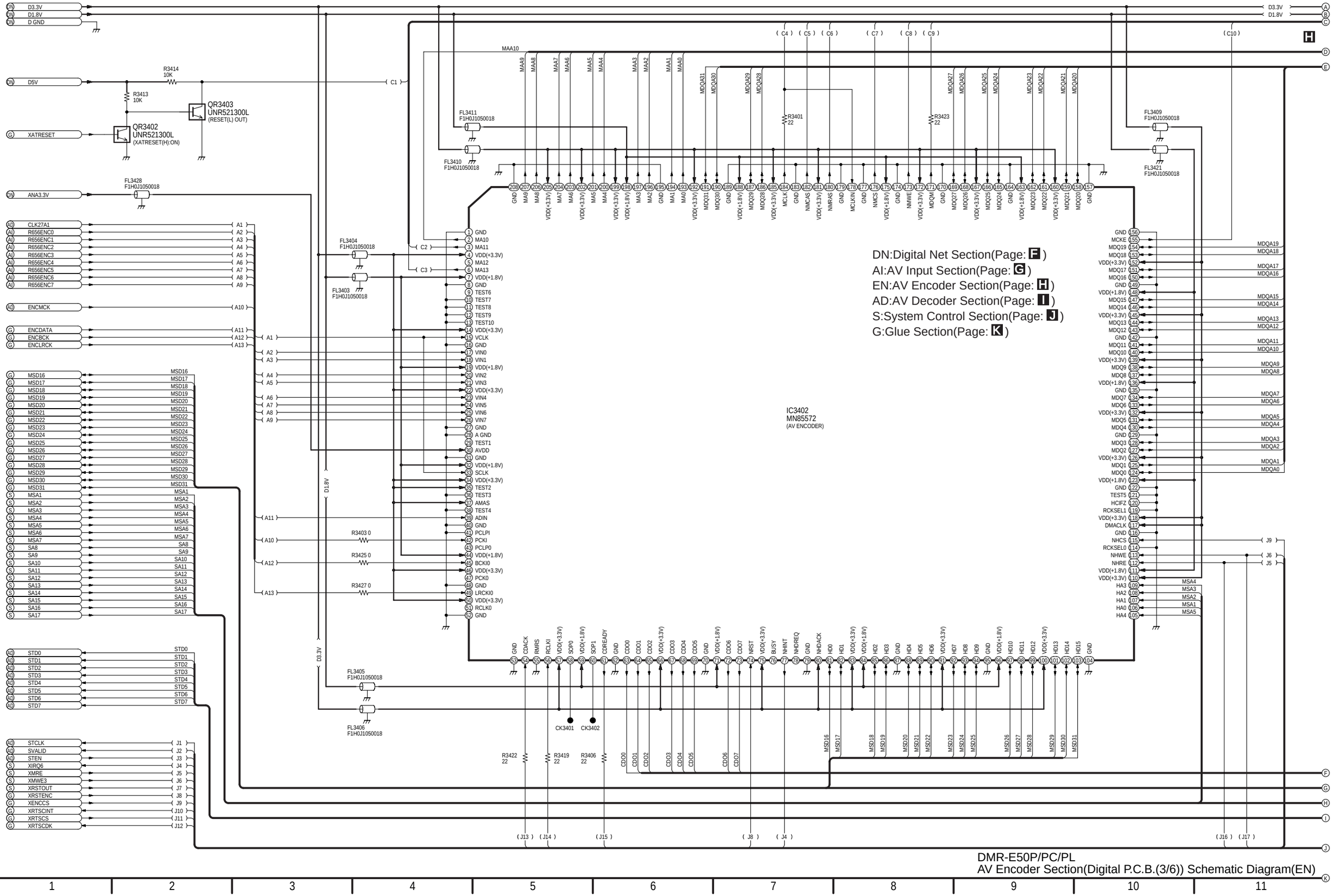
Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R7011	ERDS2FJ330	1/4W 33	1	
S7003	EVQ11G07K	SWITCH(POWER)	1	
~	06	REP3528BA		
D7801	B3ABA0000396	DIODE	1	
P7801	K1KA10B00196	CONNECTOR(10P)	1	
QR7801	UN2214TX	TRANSISTOR	1	UNR221400L
R7801	ERJ3RBD122V	1/16W 1.2K	1	
R7802	ERJ3RBD152V	1/16W 1.5K	1	
R7803	ERJ3RBD222V	1/16W 2.2K	1	
R7804	ERJ3RBD332	1/16W 3.3K	1	
R7807	ERJ3RBD122V	1/16W 1.2K	1	
R7808	ERJ3RBD152V	1/16W 1.5K	1	
R7809	ERJ3RBD222V	1/16W 2.2K	1	
R7810	ERJ3RBD332	1/16W 3.3K	1	
R7811	ERJ3RBD562V	1/16W 5.6K	1	
R7814	ERJ3RBD122V	1/16W 1.2K	1	
R7821	ERDS2FJ221	1/4W 220	1	
S7801	K0L1BA000056	SWITCH(TRAY)	1	
S7802	EVQ11G07K	SWITCH(REC)	1	
S7803	EVQ11G07K	SWITCH(CH-DOWN)	1	
S7804	EVQ11G07K	SWITCH(SKIP-R)	1	
S7805	EVQ11G07K	SWITCH(STOP)	1	
S7808	EVQ11G07K	SWITCH(CH-UP)	1	
S7809	EVQ11G07K	SWITCH(MODE)	1	
S7810	EVQ11G07K	SWITCH(ERASE)	1	
S7811	EVQ11G07K	SWITCH(TIME-WARP)	1	
S7812	EVQ11G07K	SWITCH(PLAY)	1	
S7815	EVQ11G07K	SWITCH(SKIP-F)	1	
S7816	EVQ11G07K	SWITCH(OPEN/CLOSE)	1	
~		JIG TOOLS		
	RFKZ0164	EXTENTION CABLE	1	DIGITAL (30pin×3)
	RFKZ0165	EXTENTION CABLE	1	FRONT(L) (20pin)
	RFKZ0166	EXTENTION CABLE	1	FRONT(R) (10pin)
	RFKZ0168	EXTENTION CABLE	1	FAN MOTOR (3pin)
	RFKZ0125	EXTENTION FFC	1	RAM-DIGITAL (40pin)
	RFKZ0170	EXTENTION CABLE	1	POWER SUPPLY-MAIN (19pin)
	RFKZ0171	EXTENTION CABLE	1	POWER SUPPLY-MAIN (15pin)

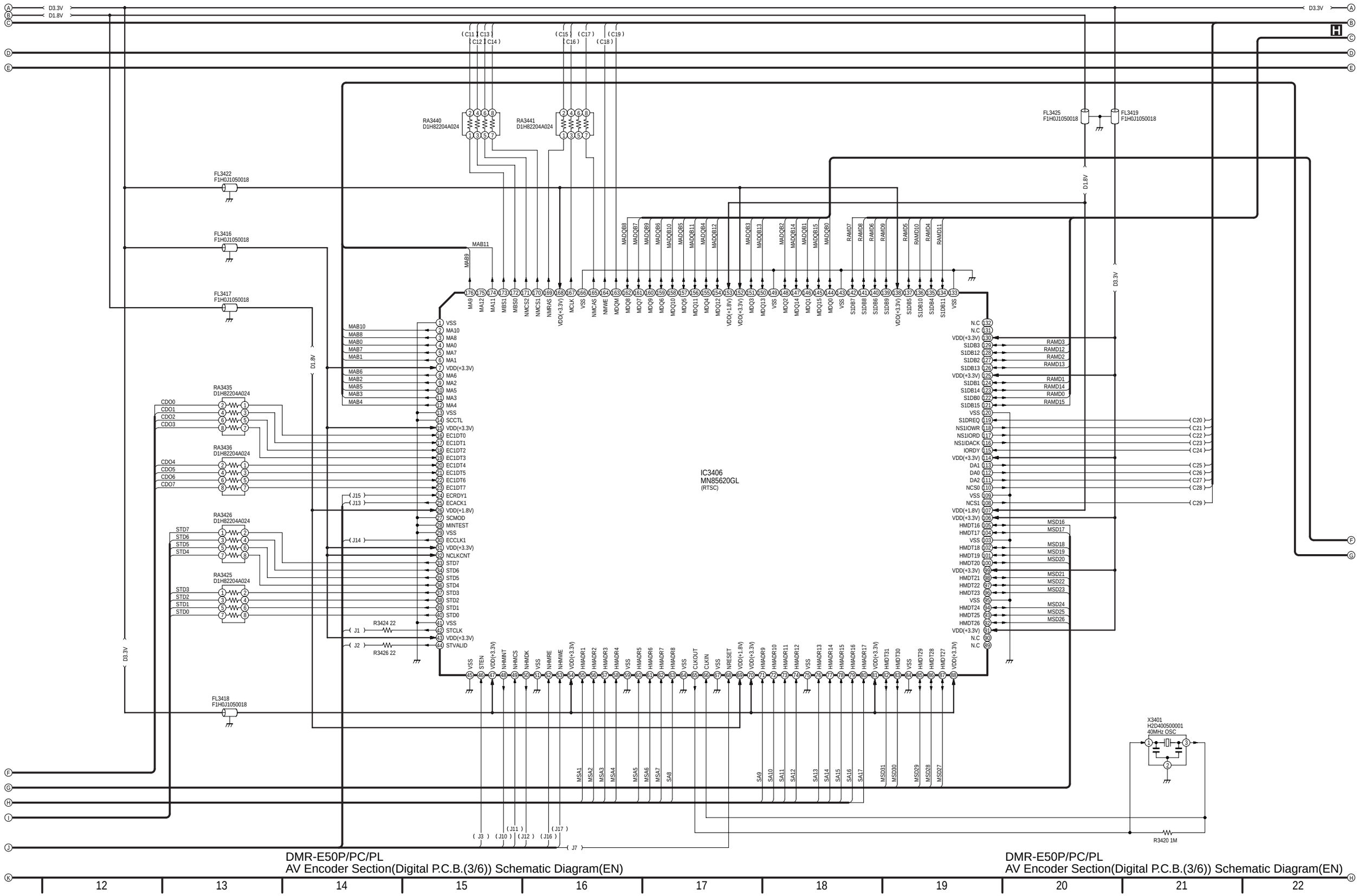
18. Schematic Diagram for printing with A4

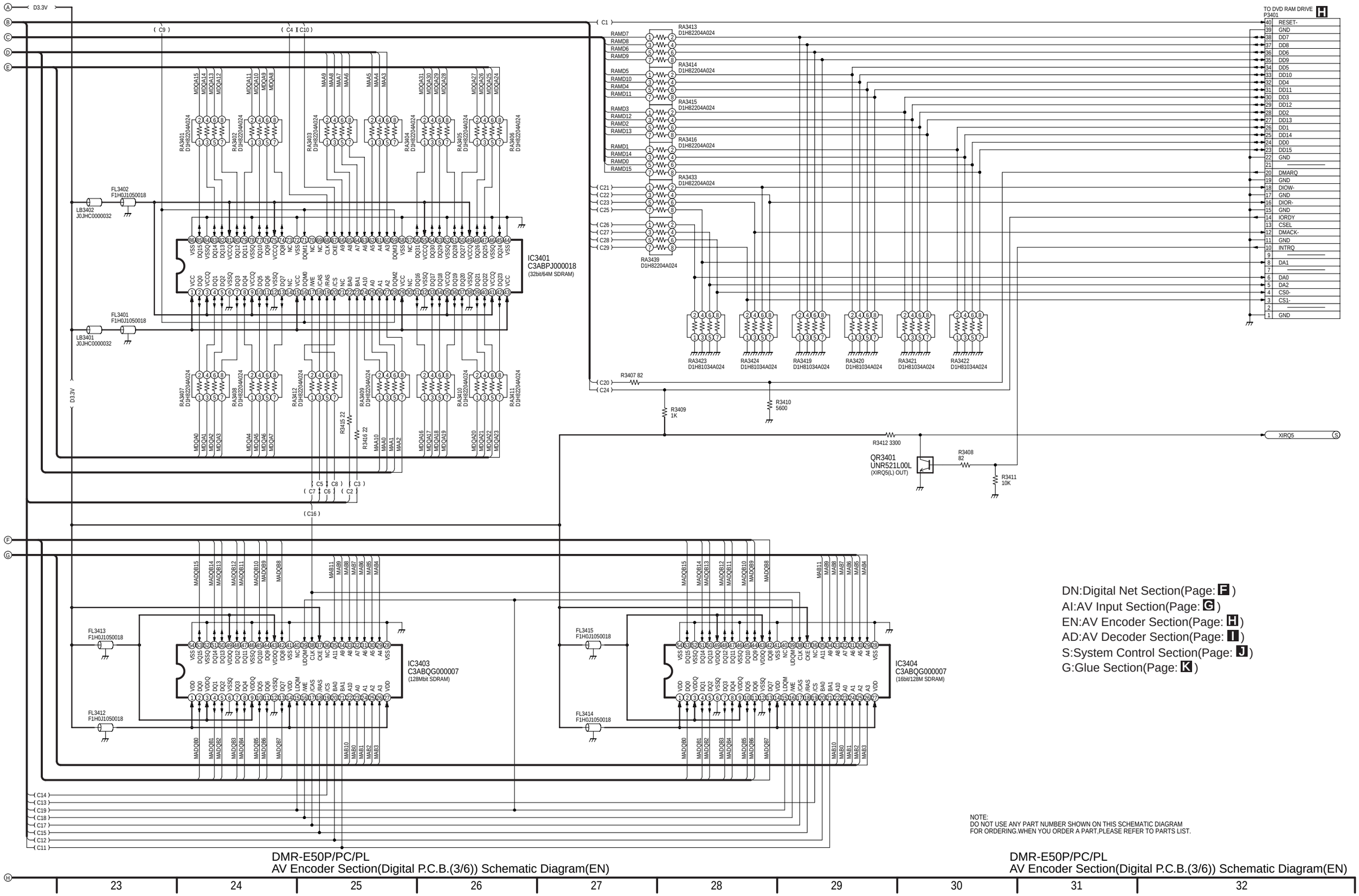


NOTE:DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST,AND MAY BE SLIGHTLY DIFFERNT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

DMR-E50P/PC/PL
Digital Net Section(Digital P.C.B.(1/6))
Schematic Diagram(DN)


DN:Digital Net Section(Page: F)
AI:AV Input Section(Page: G)
EN:AV Encoder Section(Page: H)
AD:AV Decoder Section(Page: I)
S:System Control Section(Page: J)
G:Glue Section(Page: K)
IC3402
MN85572
(AV ENCODER)
QR3403
UNR521300L
(RESET(L) OUT)
QR3402
UNR521300L
(XATRESET(H):ON)
DMR-E50P/PC/PL
AV Encoder Section(Digital P.C.B.(3/6)) Schematic Diagram(EN)

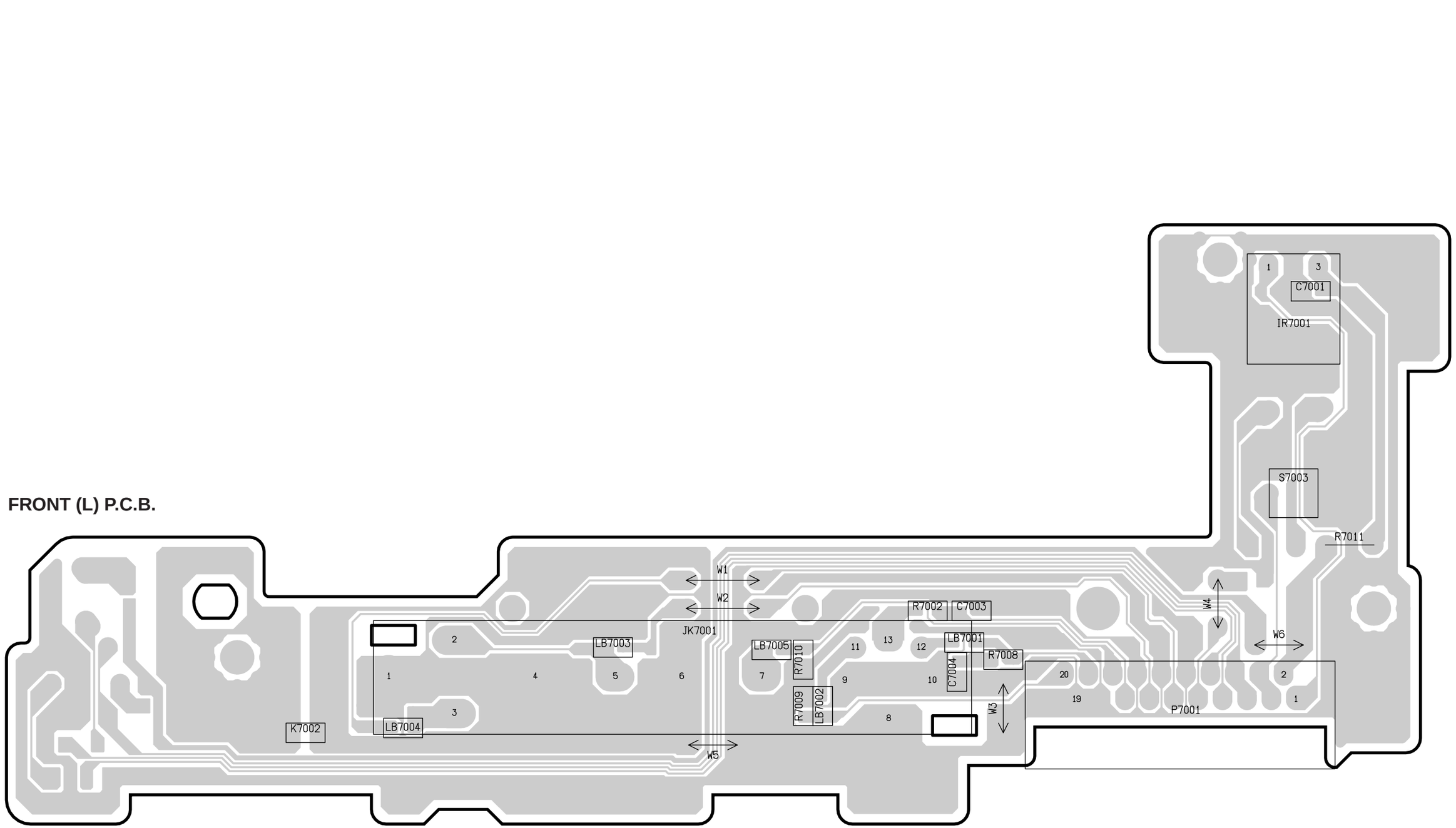

IC3406
MN85620GL
(RTSC)
RA3440 D1H82204A024
RA3441 D1H82204A024
RA3435 D1H82204A024
RA3436 D1H82204A024
RA3426 D1H82204A024
RA3425 D1H82204A024
FL3422 F1H0J1050018
FL3416 F1H0J1050018
FL3417 F1H0J1050018
FL3418 F1H0J1050018
FL3425 F1H0J1050018
FL3419 F1H0J1050018
X3401 H2D400500001 40MHz OSC
R3424 22
R3426 22
R3420 1M
D3.3V
D1.8V
MAB11
MAB9
MADQB88 MADQB87 MADQB89 MADQB86 MADQB10 MADQB85 MADQB11 MADQB84 MADQB12 MADQB83 MADQB13 MADQB82 MADQB14 MADQB81 MADQB15 MADQB80
RAMD7 RAMD8 RAMD6 RAMD9 RAMD5 RAMD10 RAMD4 RAMD11
MAB10 MAB8 MAB0 MAB7 MAB1 MAB6 MAB2 MAB5 MAB3 MAB4
CDO0 CDO1 CDO2 CDO3 CDO4 CDO5 CDO6 CDO7
STD7 STD6 STD5 STD4 STD3 STD2 STD1 STD0
MSA1 MSA2 MSA3 MSA4 MSA5 MSA6 MSA7 SA8 SA9 SA10 SA11 SA12 SA13 SA14 SA15 SA16 SA17
MSD31 MSD30 MSD29 MSD28 MSD27
RAMD3 RAMD12 RAMD2 RAMD13 RAMD1 RAMD14 RAMD0 RAMD15
MSD16 MSD17 MSD18 MSD19 MSD20 MSD21 MSD22 MSD23 MSD24 MSD25 MSD26
J1 J2 J3 J7 J10 J11 J12 J13 J14 J15 J16 J17
C11 C12 C13 C14 C15 C16 C17 C18 C19 C20 C21 C22 C23 C24 C25 C26 C27 C28 C29



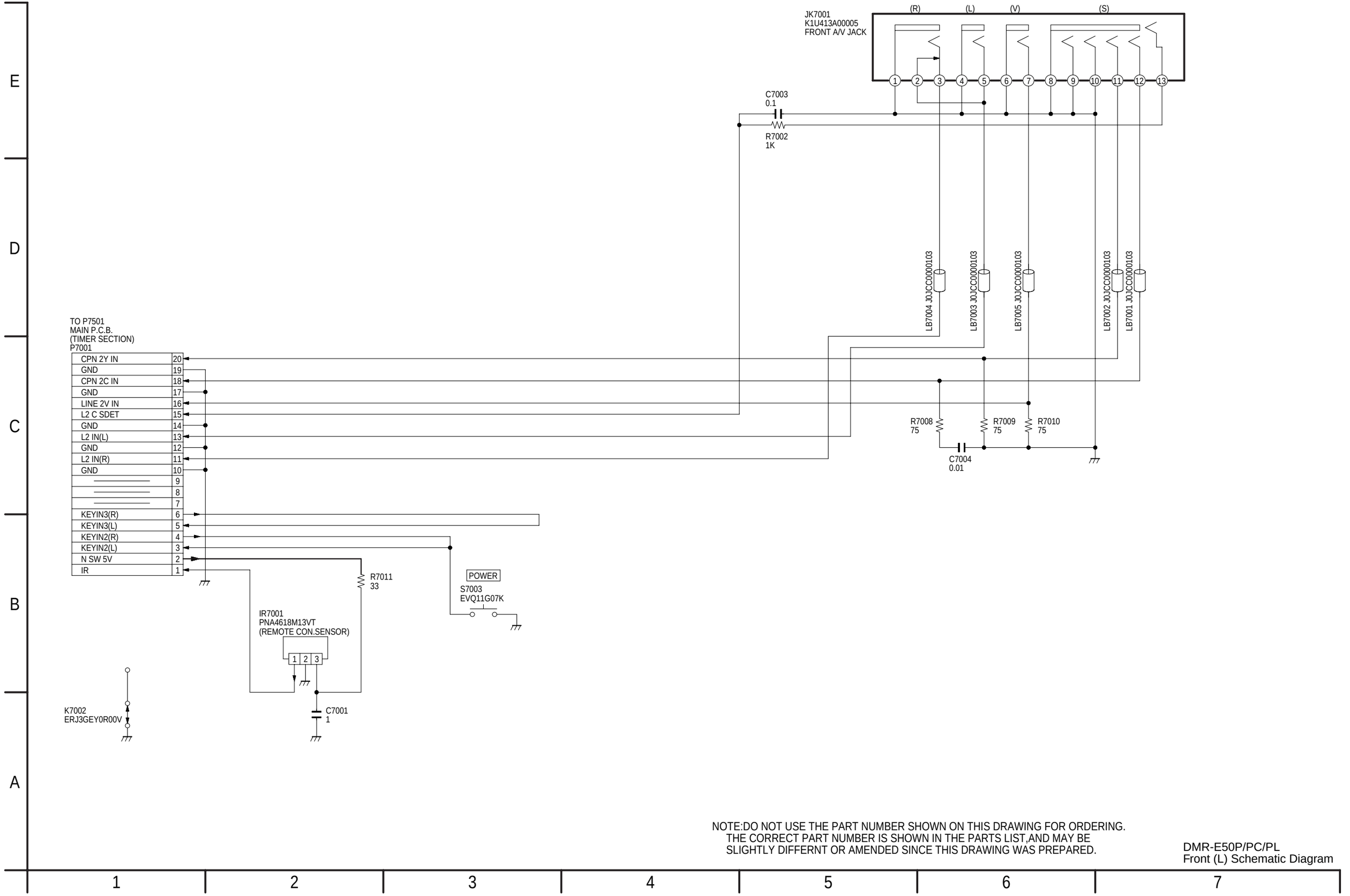
DMR-E50P/PC/PL
AV Encoder Section(Digital P.C.B.(3/6)) Schematic Diagram(EN)

DMR-E50P/PC/PL
AV Encoder Section(Digital P.C.B.(3/6)) Schematic Diagram(EN)

FRONT (L) P.C.B.



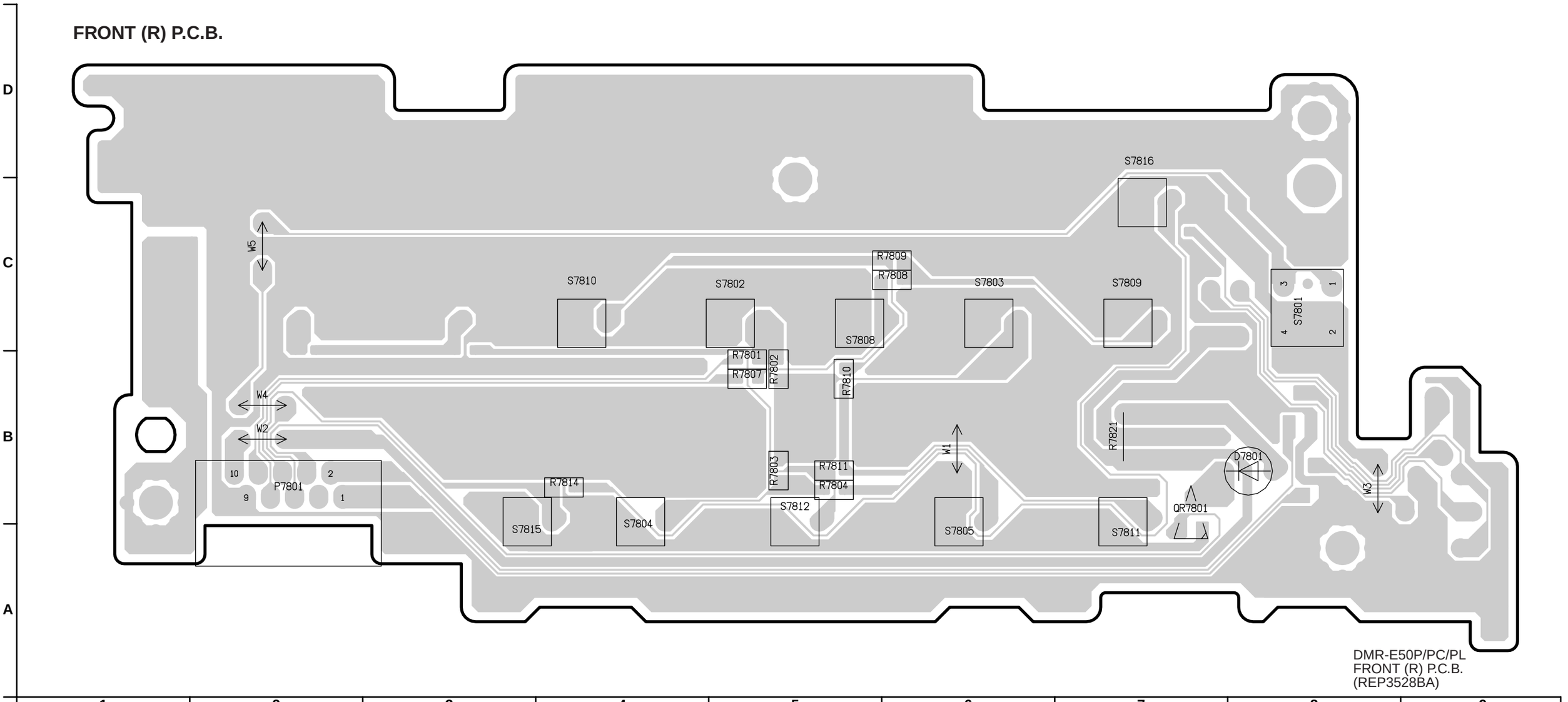
DMR-E50P/PC/PL
FRONT (L) P.C.B.
(REP3528AB)



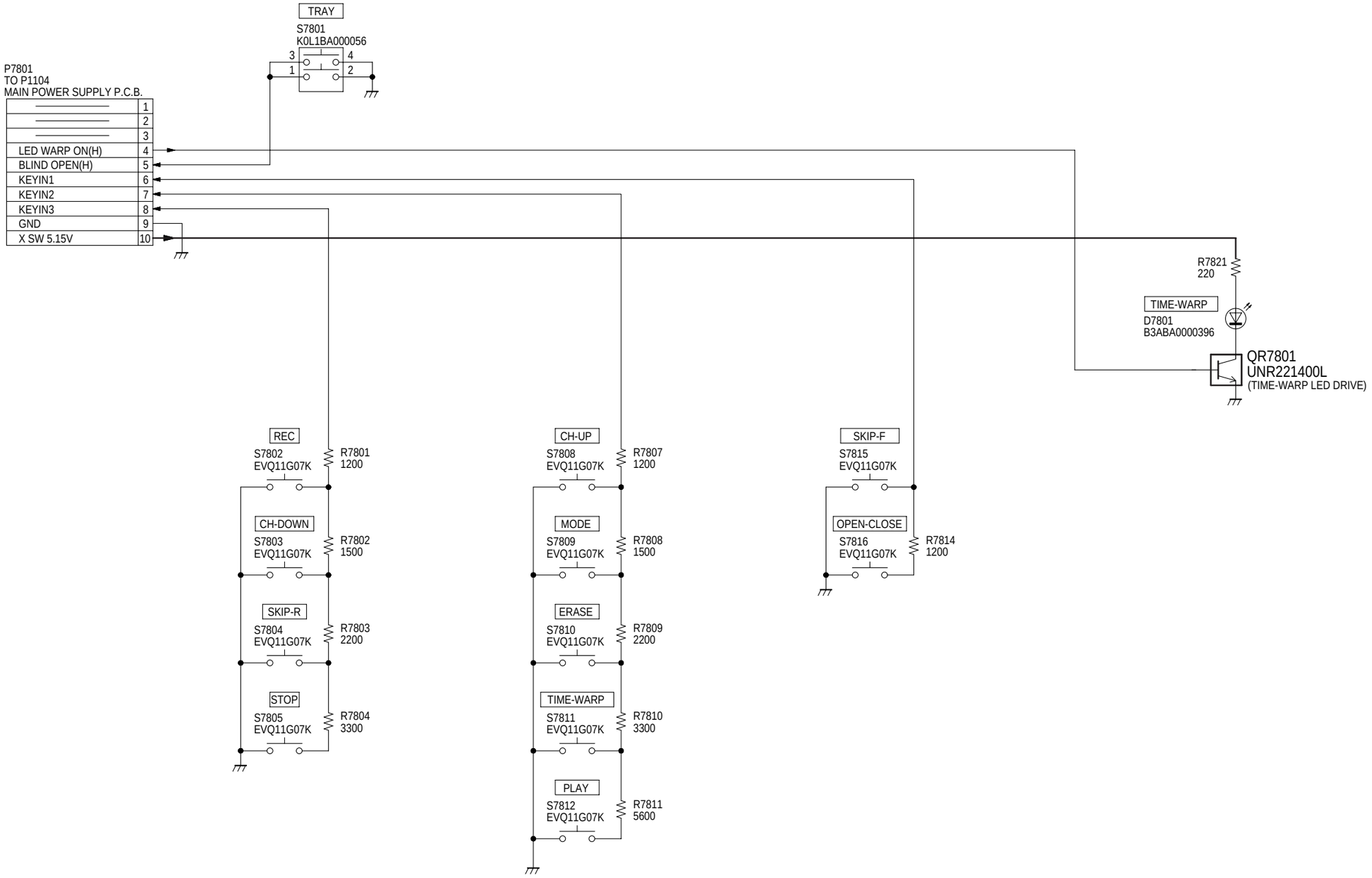
NOTE:DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING.
THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST,AND MAY BE
SLIGHTLY DIFFERNT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

DMR-E50P/PC/PL
Front (L) Schematic Diagram

FRONT (R) P.C.B.

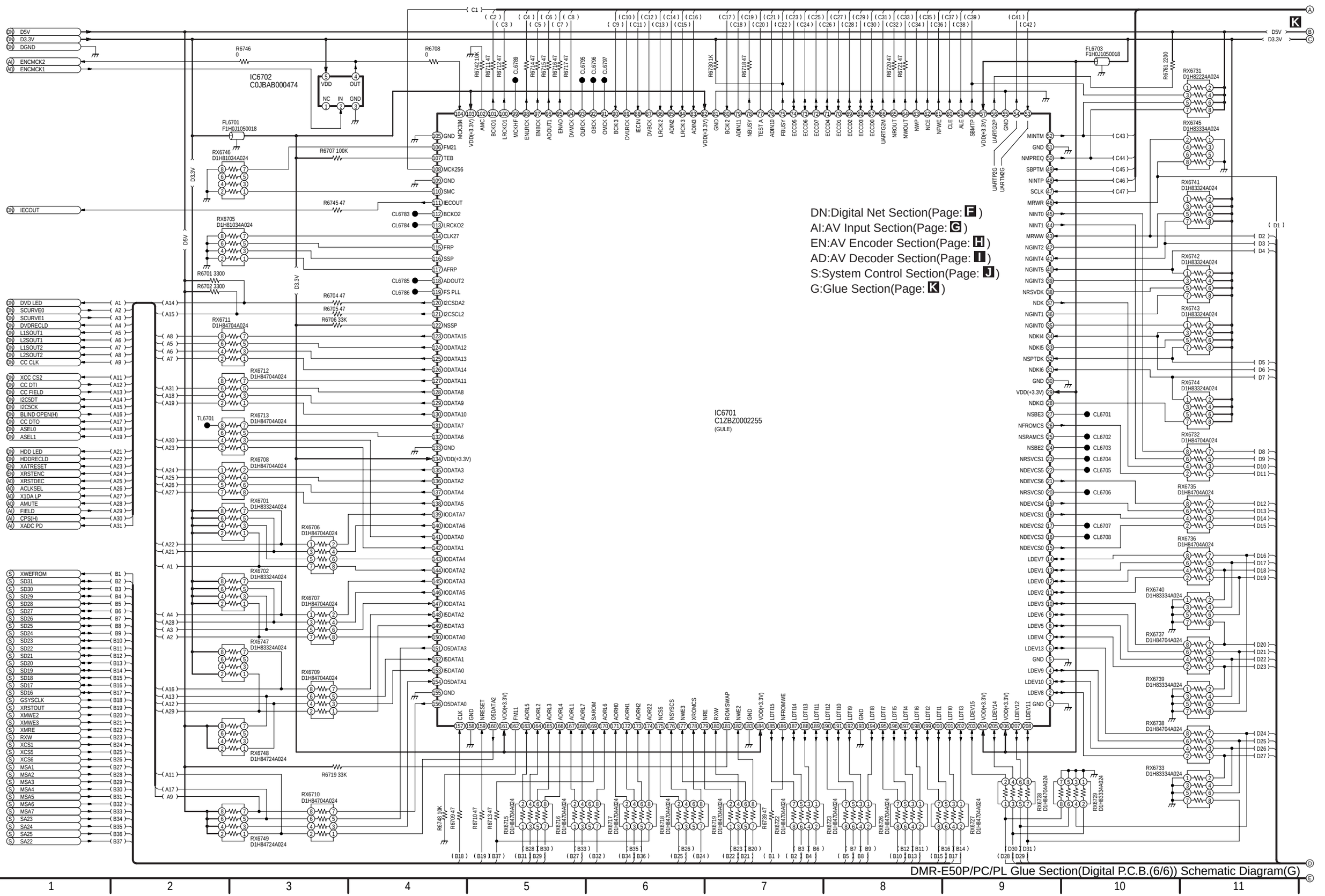


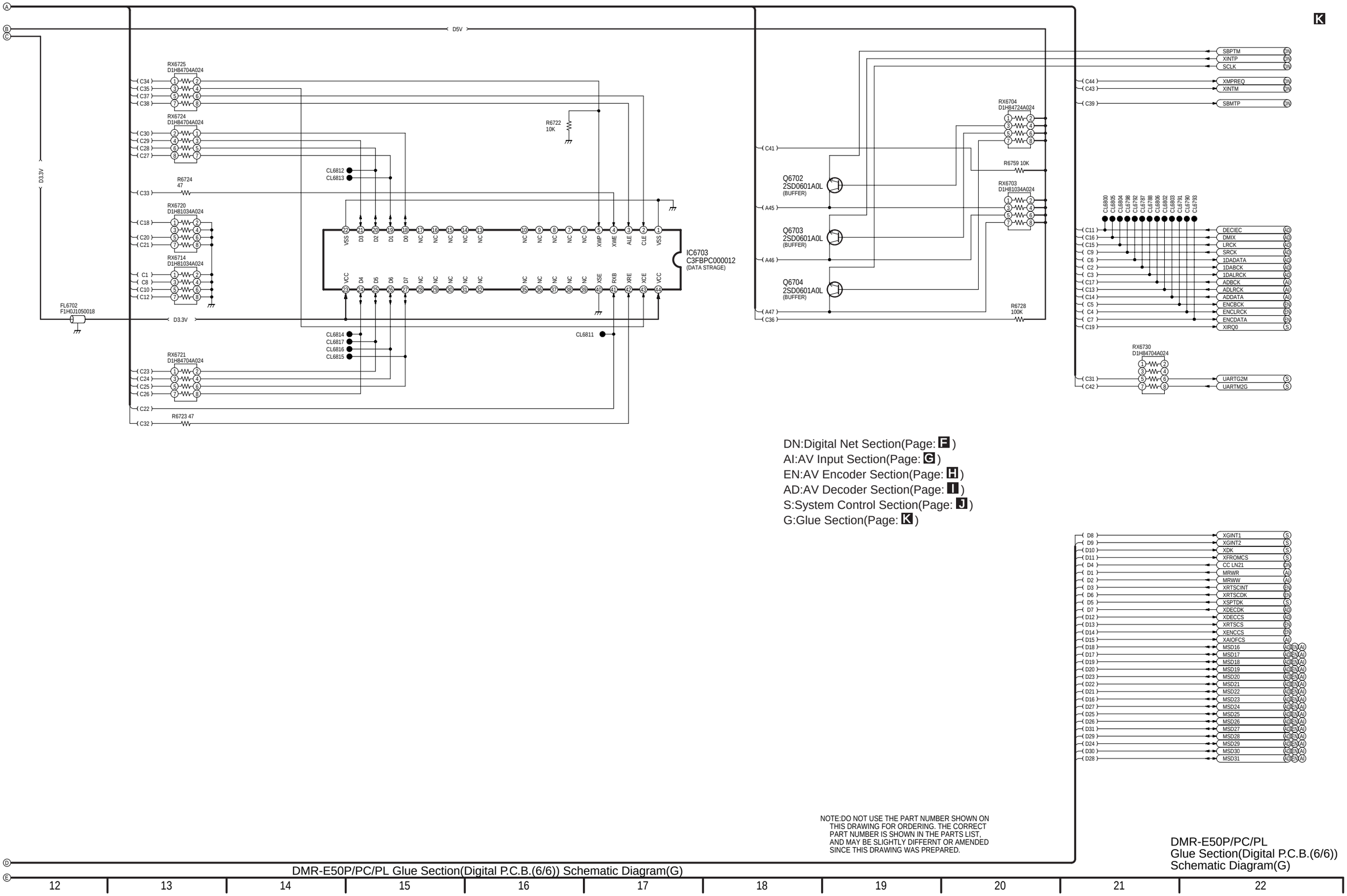
DMR-E50P/PC/PL
FRONT (R) P.C.B.
(REP3528BA)



NOTE:DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERNT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

Ref No. / MODE	QR7801		
	E	C	B
REC	0	3.5	0
PLAY	0	3.5	0
STOP	0	3.5	0

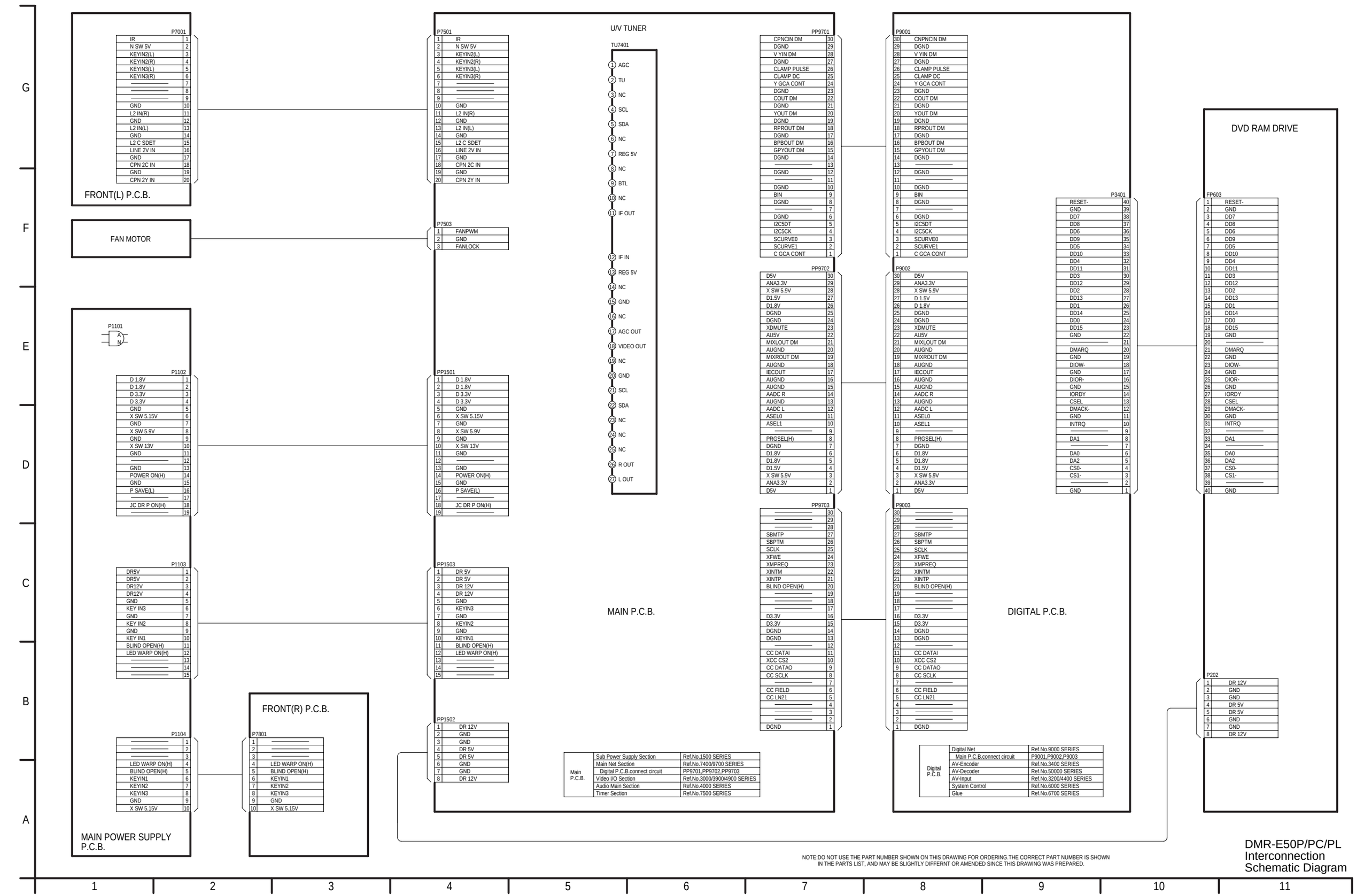

IC6702
C0JBAB000474
IC6701
C1ZBZ0002255
(GULE)
DN:Digital Net Section(Page: F)
AI:AV Input Section(Page: G)
EN:AV Encoder Section(Page: H)
AD:AV Decoder Section(Page: I)
S:System Control Section(Page: J)
G:Glue Section(Page: K)
DMR-E50P/PC/PL Glue Section(Digital P.C.B.(6/6)) Schematic Diagram(G)



DN:Digital Net Section(Page: F)
AI:AV Input Section(Page: G)
EN:AV Encoder Section(Page: H)
AD:AV Decoder Section(Page: I)
S:System Control Section(Page: J)
G:Glue Section(Page: K)

NOTE:DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERNT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

DMR-E50P/PC/PL
Glue Section(Digital P.C.B.(6/6))
Schematic Diagram(G)


FRONT(L) P.C.B.
P7001
IR 1
N SW 5V 2
KEYIN2(L) 3
KEYIN2(R) 4
KEYIN3(L) 5
KEYIN3(R) 6
7
8
9
GND 10
L2 IN(R) 11
GND 12
L2 IN(L) 13
GND 14
L2 C SDET 15
LINE 2V IN 16
GND 17
CPN 2C IN 18
GND 19
CPN 2Y IN 20
FAN MOTOR
P1101
A
N
P1102
D 1.8V 1
D 1.8V 2
D 3.3V 3
D 3.3V 4
GND 5
X SW 5.15V 6
GND 7
X SW 5.9V 8
GND 9
X SW 13V 10
GND 11
12
GND 13
POWER ON(H) 14
GND 15
P SAVE(L) 16
17
JC DR P ON(H) 18
19
P1103
DR5V 1
DR5V 2
DR12V 3
DR12V 4
GND 5
KEY IN3 6
GND 7
KEY IN2 8
GND 9
KEY IN1 10
BLIND OPEN(H) 11
LED WARP ON(H) 12
13
14
15
P1104
1
2
3
LED WARP ON(H) 4
BLIND OPEN(H) 5
KEYIN1 6
KEYIN2 7
KEYIN3 8
GND 9
X SW 5.15V 10
MAIN POWER SUPPLY P.C.B.
FRONT(R) P.C.B.
P7801
1
2
3
4 LED WARP ON(H)
5 BLIND OPEN(H)
6 KEYIN1
7 KEYIN2
8 KEYIN3
9 GND
10 X SW 5.15V
P7501
1 IR
2 N SW 5V
3 KEYIN2(L)
4 KEYIN2(R)
5 KEYIN3(L)
6 KEYIN3(R)
7
8
9
10 GND
11 L2 IN(R)
12 GND
13 L2 IN(L)
14 GND
15 L2 C SDET
16 LINE 2V IN
17 GND
18 CPN 2C IN
19 GND
20 CPN 2Y IN
P7503
1 FANPWM
2 GND
3 FANLOCK
PP1501
1 D 1.8V
2 D 1.8V
3 D 3.3V
4 D 3.3V
5 GND
6 X SW 5.15V
7 GND
8 X SW 5.9V
9 GND
10 X SW 13V
11 GND
12
13 GND
14 POWER ON(H)
15 GND
16 P SAVE(L)
17
18 JC DR P ON(H)
19
PP1503
1 DR 5V
2 DR 5V
3 DR 12V
4 DR 12V
5 GND
6 KEYIN3
7 GND
8 KEYIN2
9 GND
10 KEYIN1
11 BLIND OPEN(H)
12 LED WARP ON(H)
13
14
15
PP1502
1 DR 12V
2 GND
3 GND
4 DR 5V
5 DR 5V
6 GND
7 GND
8 DR 12V
U/V TUNER
TU7401
1 AGC
2 TU
3 NC
4 SCL
5 SDA
6 NC
7 REG 5V
8 NC
9 BTL
10 NC
11 IF OUT
12 IF IN
13 REG 5V
14 NC
15 GND
16 NC
17 AGC OUT
18 VIDEO OUT
19 NC
20 GND
21 SCL
22 SDA
23 NC
24 NC
25 NC
26 R OUT
27 L OUT
MAIN P.C.B.
PP9701
CPNCIN DM 30
DGND 29
V YIN DM 28
DGND 27
CLAMP PULSE 26
CLAMP DC 25
Y GCA CONT 24
DGND 23
COUT DM 22
DGND 21
YOUT DM 20
DGND 19
RPROUT DM 18
DGND 17
BPBOUT DM 16
GPYOUT DM 15
DGND 14
13
DGND 12
11
DGND 10
BIN 9
DGND 8
7
DGND 6
I2C5DT 5
I2C5CK 4
SCURVE0 3
SCURVE1 2
C GCA CONT 1
PP9702
D5V 30
ANA3.3V 29
X SW 5.9V 28
D1.5V 27
D1.8V 26
DGND 25
DGND 24
XDMUTE 23
AU5V 22
MIXLOUT DM 21
AUGND 20
MIXROUT DM 19
AUGND 18
IECOUT 17
AUGND 16
AUGND 15
AADC R 14
AUGND 13
AADC L 12
ASEL0 11
ASEL1 10
9
PRGSEL(H) 8
DGND 7
D1.8V 6
D1.8V 5
D1.5V 4
X SW 5.9V 3
ANA3.3V 2
D5V 1
PP9703
30
29
28
SBMTP 27
SBPTM 26
SCLK 25
XFWE 24
XMPREQ 23
XINTM 22
XINTP 21
BLIND OPEN(H) 20
19
18
17
D3.3V 16
D3.3V 15
DGND 14
DGND 13
12
CC DATAI 11
XCC CS2 10
CC DATAO 9
CC SCLK 8
7
CC FIELD 6
CC LN21 5
4
3
2
DGND 1
P9001
30 CNPNCIN DM
29 DGND
28 V YIN DM
27 DGND
26 CLAMP PULSE
25 CLAMP DC
24 Y GCA CONT
23 DGND
22 COUT DM
21 DGND
20 YOUT DM
19 DGND
18 RPROUT DM
17 DGND
16 BPBOUT DM
15 GPYOUT DM
14 DGND
13
12 DGND
11
10 DGND
9 BIN
8 DGND
7
6 DGND
5 I2C5DT
4 I2C5CK
3 SCURVE0
2 SCURVE1
1 C GCA CONT
P9002
30 D5V
29 ANA3.3V
28 X SW 5.9V
27 D 1.5V
26 D 1.8V
25 DGND
24 DGND
23 XDMUTE
22 AU5V
21 MIXLOUT DM
20 AUGND
19 MIXROUT DM
18 AUGND
17 IECOUT
16 AUGND
15 AUGND
14 AADC R
13 AUGND
12 AADC L
11 ASEL0
10 ASEL1
9
8 PRGSEL(H)
7 DGND
6 D1.8V
5 D1.8V
4 D1.5V
3 X SW 5.9V
2 ANA3.3V
1 D5V
P9003
30
29
28
27 SBMTP
26 SBPTM
25 SCLK
24 XFWE
23 XMPREQ
22 XINTM
21 XINTP
20 BLIND OPEN(H)
19
18
17
16 D3.3V
15 D3.3V
14 DGND
13 DGND
12
11 CC DATAI
10 XCC CS2
9 CC DATAO
8 CC SCLK
7
6 CC FIELD
5 CC LN21
4
3
2
1 DGND
DIGITAL P.C.B.
P3401
RESET- 40
GND 39
DD7 38
DD8 37
DD6 36
DD9 35
DD5 34
DD10 33
DD4 32
DD11 31
DD3 30
DD12 29
DD2 28
DD13 27
DD1 26
DD14 25
DD0 24
DD15 23
GND 22
21
DMARQ 20
GND 19
DIOW- 18
GND 17
DIOR- 16
GND 15
IORDY 14
CSEL 13
DMACK- 12
GND 11
INTRQ 10
9
DA1 8
7
DA0 6
DA2 5
CS0- 4
CS1- 3
2
GND 1
DVD RAM DRIVE
FP603
1 RESET-
2 GND
3 DD7
4 DD8
5 DD6
6 DD9
7 DD5
8 DD10
9 DD4
10 DD11
11 DD3
12 DD12
13 DD2
14 DD13
15 DD1
16 DD14
17 DD0
18 DD15
19 GND
20
21 DMARQ
22 GND
23 DIOW-
24 GND
25 DIOR-
26 GND
27 IORDY
28 CSEL
29 DMACK-
30 GND
31 INTRQ
32
33 DA1
34
35 DA0
36 DA2
37 CS0-
38 CS1-
39
40 GND
P202
1 DR 12V
2 GND
3 GND
4 DR 5V
5 DR 5V
6 GND
7 GND
8 DR 12V
Main P.C.B.
Sub Power Supply Section Ref.No.1500 SERIES
Main Net Section Ref.No.7400/9700 SERIES
Digital P.C.B.connect circuit PP9701,PP9702,PP9703
Video I/O Section Ref.No.3000/3900/4900 SERIES
Audio Main Section Ref.No.4000 SERIES
Timer Section Ref.No.7500 SERIES
Digital P.C.B.
Digital Net Ref.No.9000 SERIES
Main P.C.B.connect circuit P9001,P9002,P9003
AV-Encoder Ref.No.3400 SERIES
AV-Decoder Ref.No.50000 SERIES
AV-Input Ref.No.3200/4400 SERIES
System Control Ref.No.6000 SERIES
Glue Ref.No.6700 SERIES
NOTE:DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING.THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERNT OR AMENDED SINCE THIS DRAWING WAS PREPARED.
DMR-E50P/PC/PL
Interconnection
Schematic Diagram
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
11

P:Sub Power Supply Section(Page: A)
M:Main Net Section(Page: B)
V:Video I/O Section(Page: C)
A:Audio Main Section(Page: D)
T:Timer Section(Page: E)

TO P9003
DIGITAL P.C.B.
(DIGITAL NET)
PP9703

DGND	1
	2
	3
	4
CC LN21	5
CC FIELD	6
	7
CC SCLK	8
CC DATAO	9
XCC CS2	10
CC DATAI	11
	12
DGND	13
DGND	14
D3.3V	15
D3.3V	16
	17
	18
	19
BLIND OPEN(H)	20
XINTP	21
XINTM	22
XMPREQ	23
	24
SCLK	25
SBPTM	26
SBMTP	27
DVSYNC	28
	29
	30

IIC DATA (V)
IIC CLK (V)
CL9701
R7405 2.2K
QR7401 UNR521300L
CC LN21 (V)
CC FIELD (V)
CC SCLK (V T)
CC DATAO (V T)
XCC CS2 (V)
CC DATAI (V T)
D3.3V (P)
BLIND OPEN(H) (P)
XINTP (T)
XINTM (T)
XMPREQ (T)
SCLK (T)
SBPTM (T)
SBMTP (T)

TO P9002
DIGITAL P.C.B.
(DIGITAL NET)
PP9702

D5V	30
ANA3.3V	29
X SW 5.9V	28
D1.5V	27
D1.8V	26
DGND	25
DGND	24
XDMUTE	23
AU5V	22
MIXLOUT DM	21
AUGND	20
MIXROUT DM	19
AUGND	18
IECOUT	17
AUGND	16
AUGND	15
AADC R	14
AUGND	13
AADC L	12
ASEL0	11
ASEL1	10
	9
PRGSEL(H)	8
DGND	7
D1.8V	6
D1.8V	5
D1.5V	4
X SW 5.9V	3
ANA3.3V	2
D5V	1

D5V (P)
ANA3.3V (P)
X SW 5.9V (P)
D1.5V (P)
D1.8V (P)
XD MUTE (A)
AU 5V (A)
MIXLOUT DM (A)
AU GND (A)
MIXROUT DM (A)
IECOUT (V)
AADC R (A)
AADC L (A)
A IN SEL0 (A)
A IN SEL1 (A)
PRGSEL(H) (V)

UNREG38V (T)
R7419 470
R7418 470
C7417 50V1
C7416 0.01
D7401 MAZ4300NM
JC REG5V 1 (P)
TUNER L (A)
XJCINT (T)
TU VIDEO IN (V)
K7401 ERJ3GEY0R00V
R7452 680
JC REG5V 2 (P)

TU7401
ENGD6201D
1 AGC
2 TU
3 -
4 SCL
5 SDA
6 -
7 REG 5V
8 -
9 BTL
10 -
11 IF OUT
12 IF IN
13 REG 5V
14 -
15 GND
16 AFT
17 AGC OUT
18 VIDEO OUT
19 -
20 GND
21 SCL
22 SDA
23 -
24 -
25 -
26 R OUT
27 L OUT

R7403 100
R7404 100
LB7402 J0JHC0000032
C7405 6.3V47
C7404 0.01
LB7403 J0JHC0000032
C7412 10V47
C7411 0.1
TL7401
R7406 100
R7407 100
C7432 16V10
R7408 0
C7433 16V10
R7409 0

LB7408 J0JHC0000032
R7445 2.2K
R7446 15K
R7447 1K
C7438 0.1
C7439 6.3V47
IC7405
C0BBB000006
UPC393G2-T
(BUFFER)
VCC
VSS
R7451 13K
R7448 2.2K
Q7401
2SB1218A
(VIDEO BUFFER)

TUNER R (A)
C GCA CONT (V)
LB9704 ERJ3GEY0R00V
LB9703 ERJ3GEY0R00V
C9702 0.1
C9701 0.1
LB9702 J0JHC0000032
LB9701 J0JHC0000032

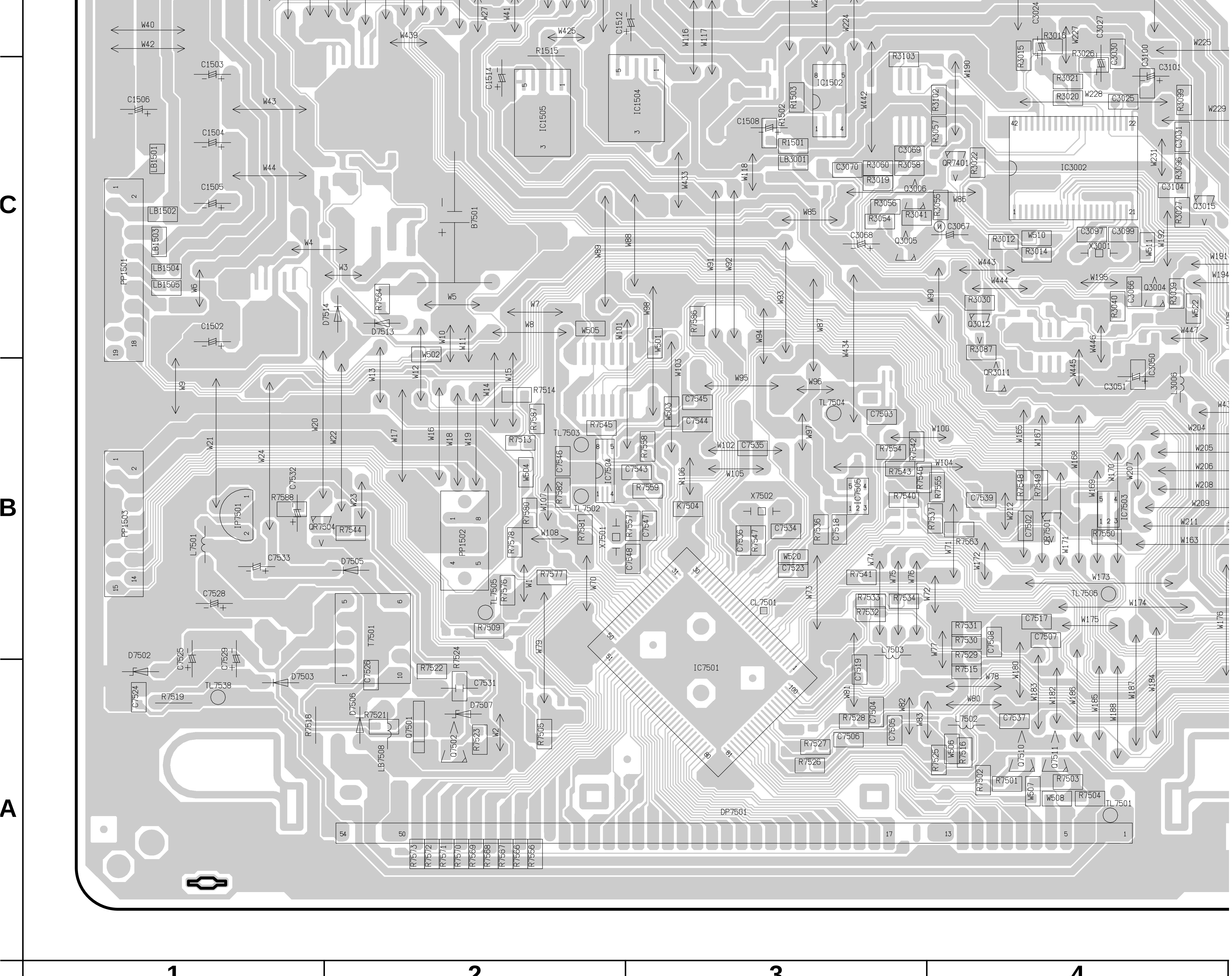
TO P9001
DIGITAL P.C.B.
(DIGITAL NET)
PP9701

C GCA CONT	1
SCURVE1	2
SCURVE0	3
I2C5CK	4
I2C5DT	5
DGND	6
	7
DGND	8
BIN	9
DGND	10
	11
DGND	12
	13
DGND	14
GPYOUT DM	15
BPBOUT DM	16
DGND	17
RPROUT DM	18
DGND	19
YOUT DM	20
DGND	21
COUT DM	22
DGND	23
Y GCA CONT	24
CLAMP DC	25
CLAMP PULSE	26
DGND	27
V YIN DM	28
DGND	29
CPNCIN DM	30

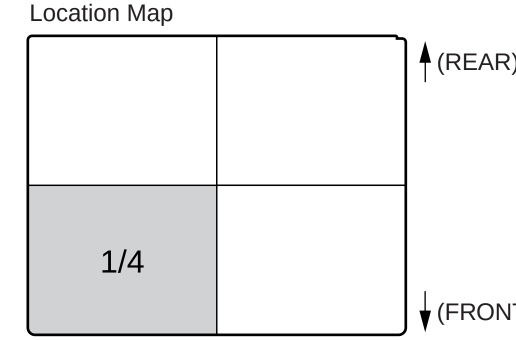
GPYOUT DM (V)
BPBOUT DM (V)
RPROUT DM (V)
YOUT DM (V)
COUT DM (V)
Y GCA CONT (V)
CLAMP DC (V)
CLAMP PULSE (V)
V YIN DM (V)
CPNCIN DM (V)

NOTE:DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING.THE CORRECTPART NUMBER IS SHOWN IN THE PARTS LIST,AND MAY BE SLIGHTLY DIFFERNT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

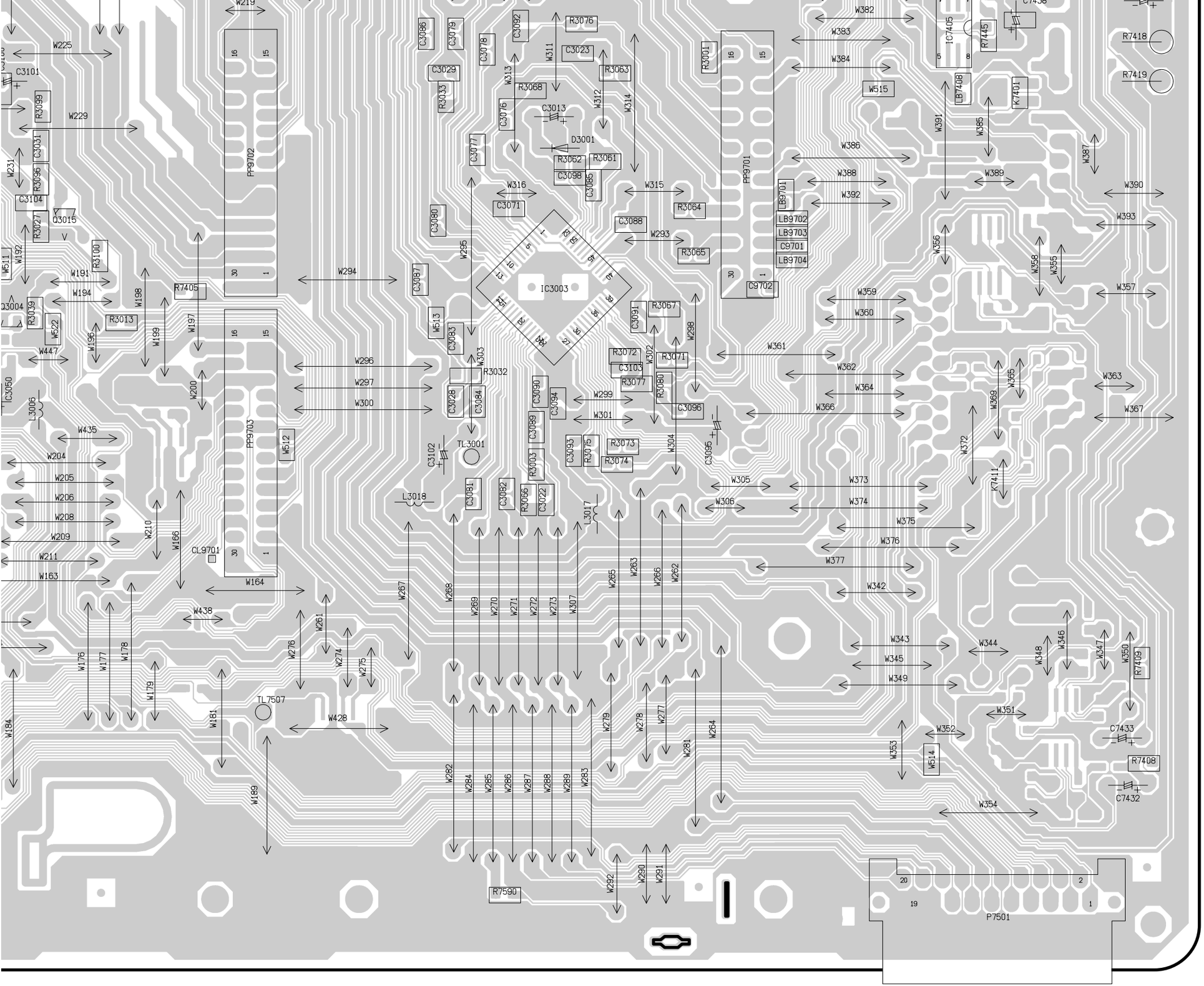
DMR-E50P/PC/PL
Main Net Section(Main P.C.B. (2/5))
Schematic Diagram(M)



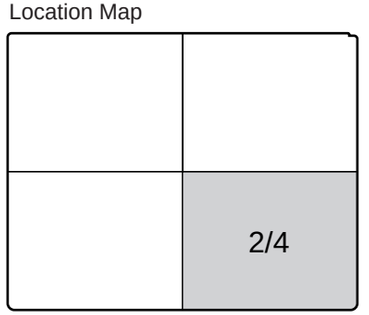
Location Map



Main P.C.B. (1/4 Section)
DMR-E50P/PC/PL (REP3497B)

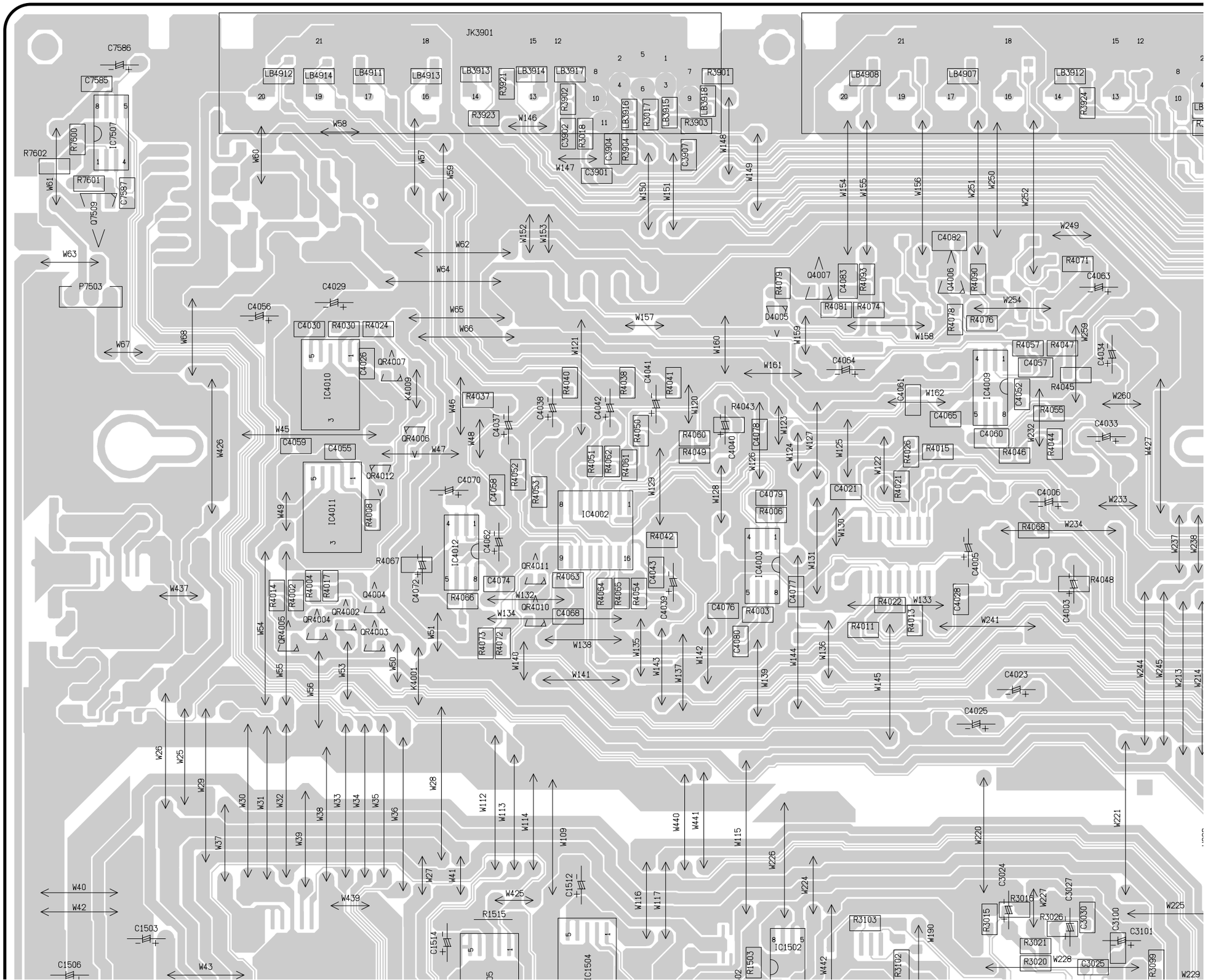


Location Map

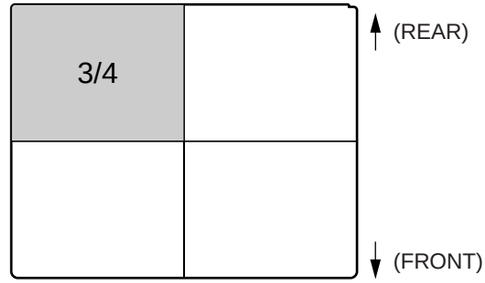


Main P.C.B. (2/4 Section)
DMR-E50P/PC/PL (REP3497B)

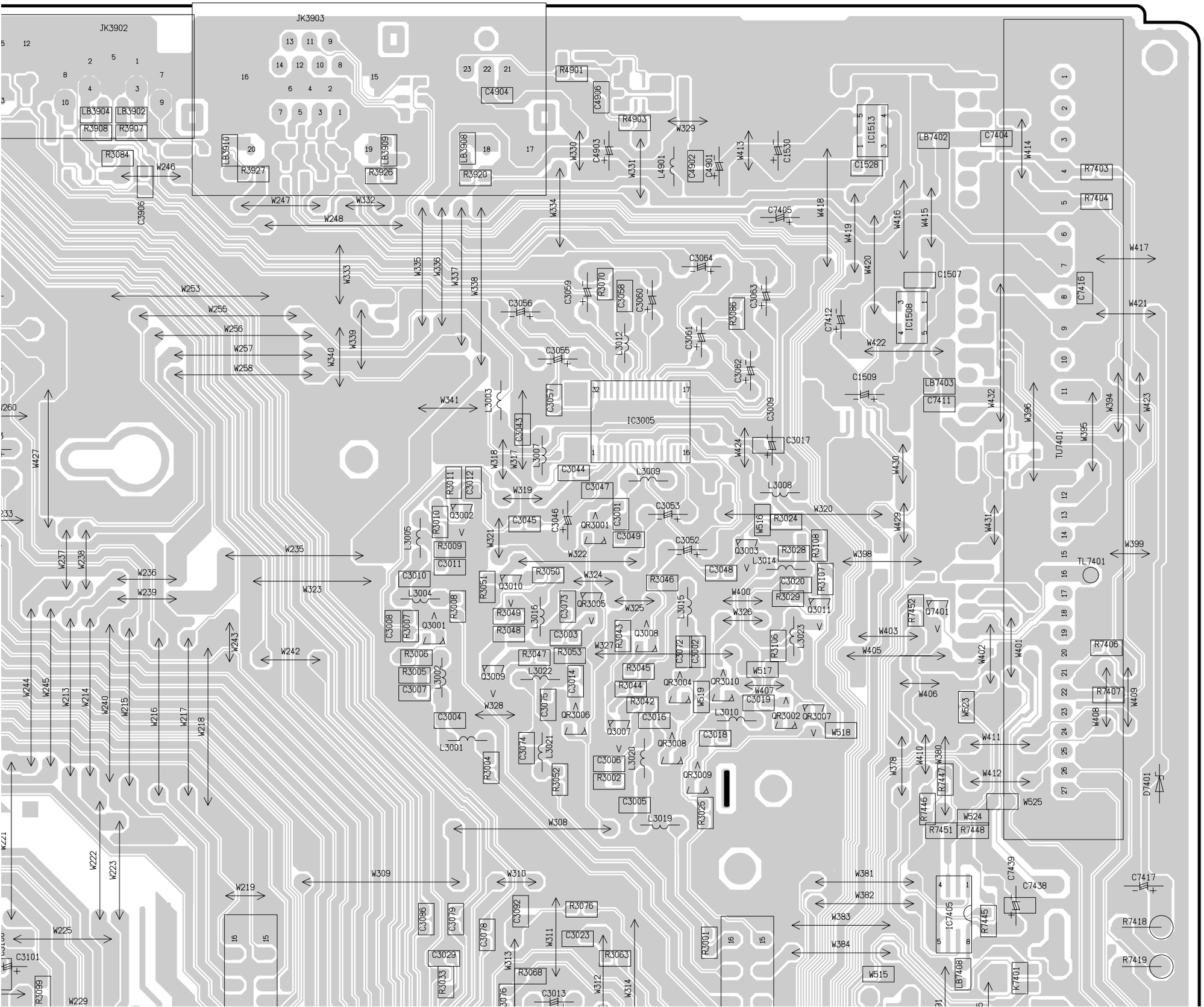
MAIN P.C.B.



Location Map

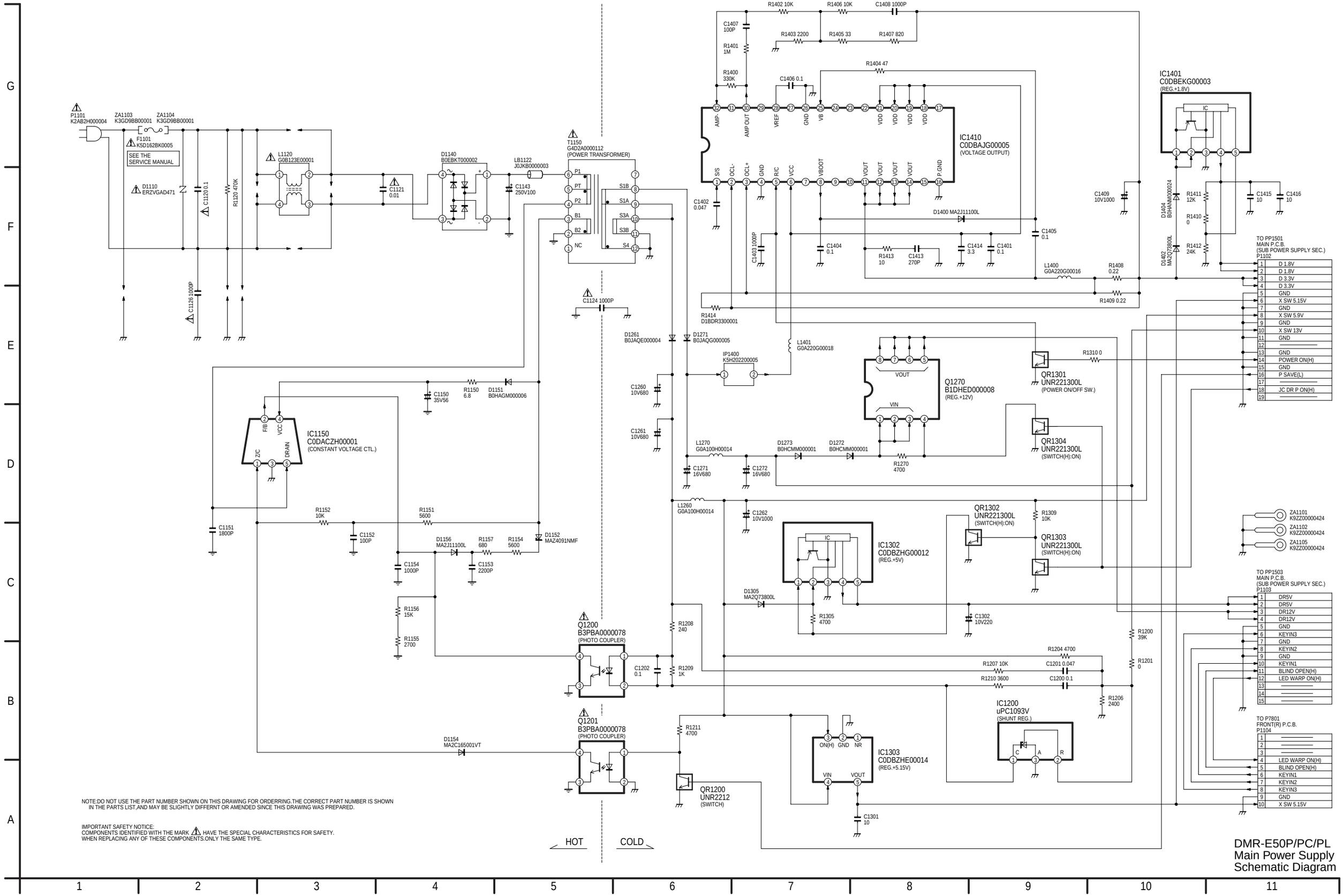


Main P.C.B. (3/4 Section)
DMR-E50P/PC/PL (REP3497B)


JK3902
JK3903
LB3904
LB3902
R3908
R3907
R3084
W246
C3906
LB3910
R3927
LB3909
R3926
LB3908
R3920
C4904
R4901
C4906
R4903
W329
W330
C4903
W331
L4901
C4902
C4901
W413
C1530
IC1513
C1528
LB7402
C7404
W414
R7403
R7404
W417
C7416
W421
W247
W332
W248
W334
C7405
W418
W419
W416
W415
W420
C1507
IC1508
C7412
W422
C1509
LB7403
C7411
W432
W396
W394
W423
TU7401
W395
W253
W255
W256
W257
W258
W333
W335
W336
W337
W338
W339
W340
C3064
C3059
R3070
C3058
C3060
C3056
C3063
R3086
C3061
C3062
C3055
L3012
C3057
L3003
C3043
W341
IC3005
C3009
C3017
W424
L3009
L3008
C3044
C3047
W319
C3053
W320
W430
W429
W431
W399
TL7401
W398
C3052
C3048
R3024
R3028
R3108
R3107
C3020
R3029
Q3011
Q3003
L3014
W400
W326
W403
W405
R7452
Q7401
W402
W401
R7406
R7407
W409
W408
W406
W523
W411
W412
W525
W524
R7451
R7448
R7446
R7447
W410
W380
W378
D7401
C7417
R7418
R7419
C7439
C7438
IC7405
R7445
LB7408
K7401
W381
W382
W383
W384
W515
W517
W518
W519
W407
C3019
QR3002
QR3007
C3018
C3016
Q3007
QR3008
QR3009
L3010
L3019
R3025
C3005
C3006
R3002
L3020
R3052
C3074
L3021
C3004
L3001
R3004
W328
C3075
QR3006
L3022
R3047
R3053
C3014
Q3009
W327
R3043
Q3008
C3072
C3002
R3045
R3044
R3042
QR3004
QR3010
W517
L3023
R3106
W325
L3015
R3046
W324
R3050
R3051
Q3010
C3073
QR3005
L3016
R3049
R3048
C3003
C3008
R3007
Q3001
L3004
R3006
R3005
C3007
L3002
W322
C3045
C3046
QR3001
C3001
C3049
W321
R3009
C3011
C3010
L3005
R3010
Q3002
R3011
C3012
W319
W323
W235
W236
W239
W237
W238
W242
W243
W244
W245
W213
W214
W240
W215
W216
W217
W218
W222
W223
W225
W219
W309
W310
W308
C3086
C3079
C3078
C3092
R3076
C3023
R3063
R3068
C3029
R3033
C3013
W311
W312
W313
W314
R3001
C3101
R3099
W229
W227
W260
W427
W233
W271
Location Map
4/4
(REAR)
(FRONT)
Main P.C.B. (4/4 Section)
DMR-E50P/PC/PL (REP3497B)

MAIN P.C.B.

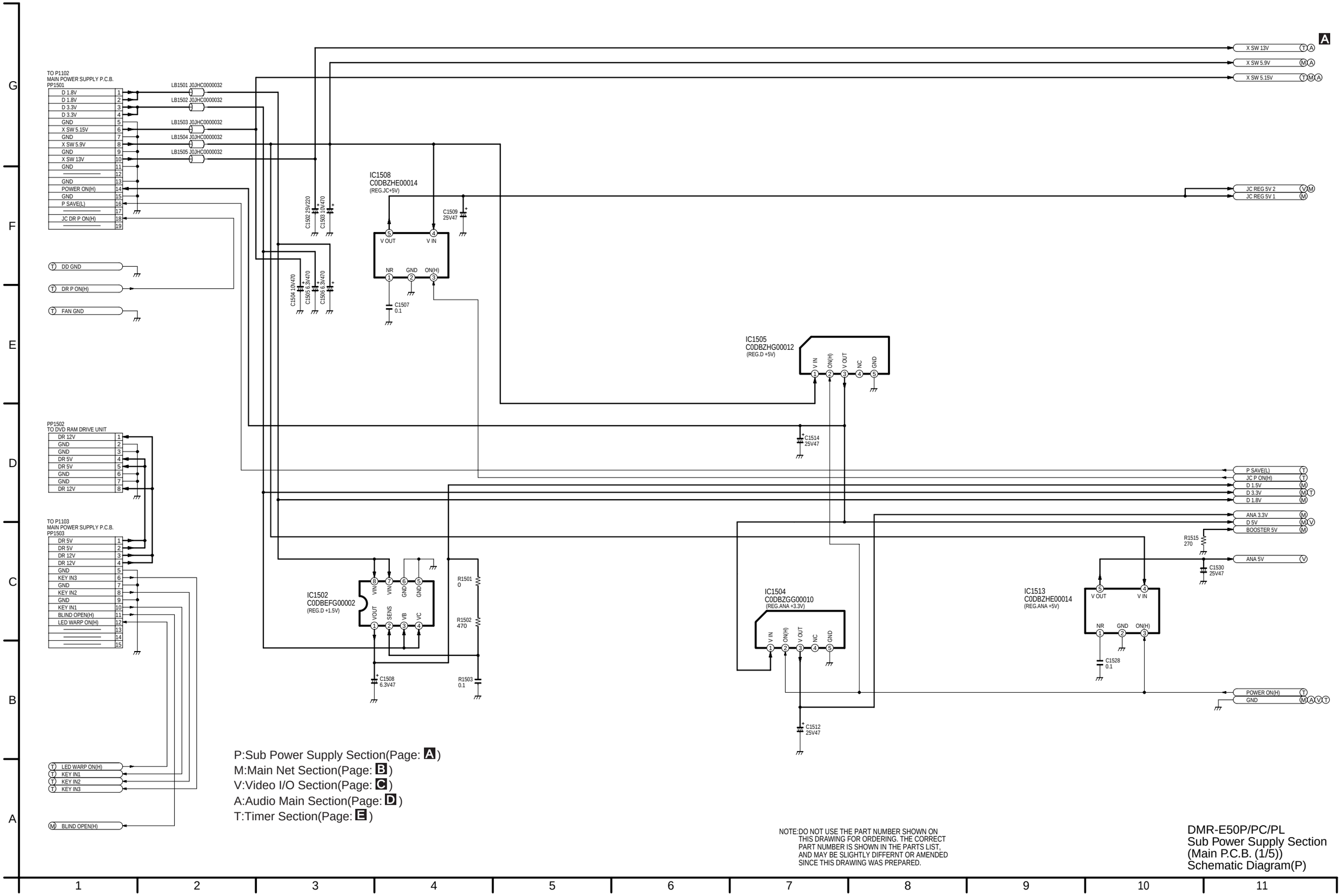
Integrated Circuit	
IC1502	C-3
IC1504	C-3
IC1505	C-2
IC1506	C-1
IC1508	E-7
IC1513	F-7
IC3002	C-4
IC3003	C-6
IC3005	E-6
IC4002	E-3
IC4003	E-3
IC4009	E-4
IC4010	E-2
IC4011	E-2
IC4012	E-2
IC7405	D-7
IC7501	A-3
IC7503	B-4
IC7504	B-2
IC7505	B-3
IC7507	F-1
Transistor	
Q3001	D-6
Q3002	E-6
Q3003	E-7
Q3004	C-4
Q3005	C-3
Q3006	C-3
Q3007	D-6
Q3008	D-6
Q3009	D-6
Q3010	E-6
Q3011	E-7
Q3012	C-4
Q3015	C-4
Q4004	E-2
Q4006	F-4
Q4007	F-3
Q7401	E-7
Q7501	A-2
Q7502	A-2
Q7509	F-1
Q7510	A-4
Q7511	A-4
Transistor-resistor	
QR3001	E-6
QR3002	D-7
QR3004	D-6
QR3005	E-6
QR3006	D-6
QR3007	D-7
QR3008	D-6
QR3009	D-6
QR3010	D-6
QR3011	B-4
QR4002	D-2
QR4003	D-2
QR4004	D-2
QR4005	D-2
QR4006	E-2
QR4007	E-2
QR4010	D-2
QR4011	E-2
QR4012	E-2
QR7401	C-4
QR7501	B-4
QR7504	B-2
Test Point	
CL7501	B-3
CL9701	B-5
TL3001	B-6
TL7401	E-8
TL7501	A-4
TL7502	B-2
TL7503	B-2
TL7504	B-3
TL7505	B-2
TL7506	B-4
TL7507	A-5
TL7538	A-1
Connector	
JK3901	F-2
JK3902	F-4
JK3903	F-5
P7501	A-7
P7503	E-1
PP1501	C-1
PP1502	B-2
PP1503	B-1
PP9701	C-7
PP9702	C-5
PP9703	B-5
Diode	
D3001	C-6
D4005	E-3
D7401	D-8
D7502	A-1
D7503	A-1
D7505	B-2
D7506	A-2
D7507	A-2
D7513	C-2
D7514	C-2
Crystal Osillator	
X3001	C-4
X7501	B-2
X7502	B-3
IC Protector	
IP7501	B-1
Coil	
L3001	D-6
L3002	D-6
L3003	E-6
L3004	E-6
L3005	E-6
L3006	B-4
L3007	E-6
L3008	E-7
L3009	E-6
L3010	D-6
L3012	E-6
L3014	E-7
L3015	E-6
L3016	E-6
L3017	B-6
L3018	B-5
L3019	D-6
L3020	D-6
L3021	D-6
L3022	D-6
L3023	D-7
L4901	F-6
L7501	B-1
L7502	A-4
L7503	B-3
L7504	B-3
LB1501	C-1
LB1502	C-1
LB1503	C-1
LB1504	C-1
LB1505	C-1
LB3001	C-3
LB3902	F-5
LB3904	F-5
LB3908	F-6
LB3909	F-5
LB3910	F-5
LB3912	F-4
LB3913	F-2
LB3914	F-2
LB3915	F-3
LB3916	F-3
LB3917	F-3
LB3918	F-3
LB4907	F-4
LB4908	F-3
LB4911	F-2
LB4912	F-2
LB4913	F-2
LB4914	F-2
LB7402	F-7
LB7403	E-7
LB7408	C-7
LB7508	A-2
LB9701	C-7
LB9702	C-7
LB9703	C-7
LB9704	C-7
Capacitor	
C1502	C-1
C1503	C-1
C1504	C-1
C1505	C-1
C1506	C-1
C1507	F-7
C1508	C-3
C1509	E-7
C1512	D-3
C1514	C-2
C1528	F-7
C1530	F-7
C3001	E-6
C3002	D-6
C3003	D-6
C3004	D-6
C3005	D-6
C3006	D-6
C3007	D-6
C3008	D-5
C3009	E-7
C3010	E-6
C3011	E-6
C3012	E-6
C3013	C-6
C3014	D-6
C3016	D-6
C3017	E-7
C3018	D-6
C3019	D-7
C3020	E-7
C3022	B-6
C3023	D-6
C3024	D-4
C3025	C-4
C3027	C-4
C3028	B-6
C3029	C-6
C3030	D-4
C3031	C-4
C3043	E-6
C3044	E-6
C3045	E-6
C3046	E-6
C3047	E-6
C3048	E-6
C3049	E-6
C3050	B-4
C3051	B-4
C3052	E-6
C3053	E-6
C3055	E-6
C3056	E-6
C3057	E-6
C3058	F-6
C3059	F-6
C3060	E-6
C3061	E-6
C3062	E-7
C3063	F-7
C3064	F-6
C3066	C-4
C3067	C-4
C3068	C-3
C3069	C-3
C3070	C-3
C3071	C-6
C3072	D-6
C3073	E-6
C3074	D-6
C3075	D-6
C3076	C-6
C3077	C-6
C3078	D-6
C3079	D-6
C3080	C-6
C3081	B-6
C3082	B-6
C3083	C-6
C3084	B-6
C3085	C-6
C3086	D-6
C3087	C-6
C3088	C-6
C3089	B-6
C3090	B-6
C3091	C-6
C3092	D-6
C3093	B-6
C3094	B-6
C3095	B-6
C3096	B-6
C3097	C-4
C3098	C-6
C3099	C-4
C3100	C-4
C3101	C-4
C3102	B-6
C3103	C-6
C3104	C-4
C3901	F-3
C3902	F-2
C3904	F-3
C3906	F-5
C3907	F-3
C4003	E-4
C4005	E-4
C4006	E-4
C4021	E-3
C4023	D-4
C4025	D-4
C4026	E-2
C4028	E-4
C4029	E-2
C4030	E-2
C4033	E-4
C4034	E-4
C4037	E-2
C4038	E-2
C4039	E-3
C4040	E-3
C4041	E-3
C4042	E-3
C4043	E-3
C4052	E-4
C4055	E-2
C4056	E-1
C4057	E-4
C4058	E-2
C4059	E-2
C4060	E-4
C4061	E-4
C4062	E-2
C4063	F-4
C4064	E-3
C4065	E-4
C4068	D-2
C4070	E-2
C4072	E-2
C4074	E-2
C4076	D-3
C4077	E-3
C4078	E-3
C4079	E-3
C4080	D-3
C4082	F-4
C4083	F-3
C4901	F-6
C4902	F-6
C4903	F-6
C4904	F-6
C4906	F-6
C7404	F-7
C7405	F-7
C7411	E-7
C7412	E-7
C7416	F-8
C7417	D-8
C7432	A-8
C7433	A-8
C7438	D-7
C7439	D-7
C7502	B-4
C7503	B-3
C7504	A-3
C7505	A-3
C7506	A-3
C7507	B-4
C7508	B-4
C7517	B-4
C7518	B-3
C7519	A-3
C7523	B-3
C7524	A-1
C7525	B-1
C7526	A-2
C7528	B-1
C7529	B-1
C7531	A-2
C7532	B-1
C7533	B-1
C7534	B-3
C7535	B-3
C7536	B-3
C7537	A-4
C7539	B-4
C7543	B-3
C7544	B-3
C7545	B-3
C7546	B-2
C7547	B-3
C7548	B-3
C7585	F-1
C7586	F-1
C7587	F-1
C9701	C-7
C9702	C-7
Resistor	
R1501	C-3
R1502	C-3
R1515	C-2
R3001	D-6
R3002	D-6
R3003	B-6
R3004	D-6
R3005	D-6
R3006	D-6
R3007	D-6
R3008	E-6
R3009	E-6
R3010	E-6
R3011	E-6
R3012	C-4
R3013	C-5
R3014	C-4
R3015	C-4
R3016	D-4
R3017	F-3
R3018	F-3
R3019	C-3
R3020	C-4
R3021	C-4
R3022	C-4
R3024	E-7
R3025	D-6
R3026	C-4
R3027	C-4
R3028	E-7
R3029	E-7
R3030	C-4
R3032	C-6
R3033	C-6
R3039	C-4
R3040	C-4
R3041	C-3
R3042	D-6
R3043	D-6
R3044	D-6
R3045	D-6
R3046	E-6
R3047	D-6
R3048	D-6
R3049	E-6
R3050	E-6
R3051	E-6
R3052	D-6
R3053	D-6
R3054	C-3
R3055	C-4
R3056	C-3
R3057	C-4
R3058	C-3
R3059	C-3
R3060	C-3
R3061	C-6
R3062	C-6
R3063	C-6
R3064	C-6
R3065	C-6
R3066	B-6
R3067	C-6
R3068	C-6
R3070	F-6
R3071	C-6
R3072	C-6
R3073	B-6
R3074	B-6
R3075	B-6
R3076	D-6
R3077	B-6
R3080	B-6
R3084	F-5
R3086	E-7
R3087	C-4
R3096	C-4
R3099	C-4
R3100	C-5
R3102	C-4
R3103	C-3
R3106	D-7
R3107	E-7
R3108	E-7
R3901	F-3
R3902	F-2
R3903	F-3
R3904	F-3
R3907	F-5
R3908	F-5
R3920	F-6
R3921	F-2
R3923	F-2
R3924	F-4
R3926	F-5
R3927	F-5
R4002	E-2
R4003	D-3
R4004	E-2
R4006	E-3
R4008	E-2
R4011	D-3
R4013	D-4
R4014	E-2
R4015	E-4
R4017	E-2
R4021	E-4
R4022	D-4
R4024	E-2
R4026	E-4
R4030	E-2
R4037	E-2
R4038	E-3
R4040	E-3
R4041	E-3
R4042	E-3
R4043	E-3
R4044	E-4
R4045	E-4
R4046	E-4
R4047	E-4
R4048	E-4
R4049	E-3
R4050	E-3
R4051	E-3
R4052	E-2
R4053	E-2
R4054	E-3
R4055	E-4
R4056	E-4
R4057	E-4
R4060	E-3
R4061	E-3
R4062	E-3
R4063	E-2
R4064	E-3
R4065	E-3
R4066	E-2
R4067	E-2
R4068	E-4
R4071	F-4
R4072	D-2
R4073	D-2
R4074	E-3
R4076	E-4
R4078	E-4
R4079	F-3
R4081	E-3
R4090	F-4
R4093	F-3
R4901	F-6
R4903	F-6
R7403	F-8
R7404	F-8
R7405	C-5
R7406	D-8
R7407	D-8
R7408	A-8
R7409	B-8
R7418	D-8
R7419	C-8
R7445	D-7
R7446	D-7
R7447	D-7
R7448	D-7
R7451	D-7
R7452	E-7
R7501	A-4
R7502	A-4
R7503	A-4
R7504	A-4
R7505	A-2
R7509	B-2
R7513	B-2
R7514	B-2
R7515	A-4
R7516	A-4
R7517	A-2
R7518	A-1
R7519	A-1
R7521	A-2
R7522	A-2
R7523	A-2
R7524	A-2
R7525	A-4
R7526	A-3
R7527	A-3
R7528	A-3
R7529	B-4
R7530	B-4
R7531	B-4
R7532	B-3
R7533	B-3
R7534	B-3
R7536	B-3
R7537	B-4
R7540	B-3
R7541	B-3
R7542	B-3
R7543	B-3
R7544	B-2
R7545	B-2
R7546	B-4
R7547	B-3
R7548	B-4
R7549	B-4
R7550	B-4
R7554	B-3
R7555	B-4
R7556	A-2
R7557	B-3
R7558	B-3
R7559	B-3
R7563	B-4
R7564	C-2
R7566	A-2
R7567	A-2
R7568	A-2
R7569	A-2
R7570	A-2
R7571	A-2
R7572	A-2
R7573	A-2
R7576	B-2
R7577	B-2
R7578	B-2
R7580	B-2
R7581	B-2
R7582	B-2
R7586	C-3
R7587	B-2
R7588	B-1
R7590	A-6
R7600	F-1
R7601	F-1
R7602	F-1
Transformer	
T7501	B-2
Backup Battery	
B7501	C-2



NOTE:DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERRING.THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST,AND MAY BE SLIGHTLY DIFFERNT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS.ONLY THE SAME TYPE.

DMR-E50P/PC/PL
Main Power Supply
Schematic Diagram



P:Sub Power Supply Section(Page: A)
M:Main Net Section(Page: B)
V:Video I/O Section(Page: C)
A:Audio Main Section(Page: D)
T:Timer Section(Page: E)

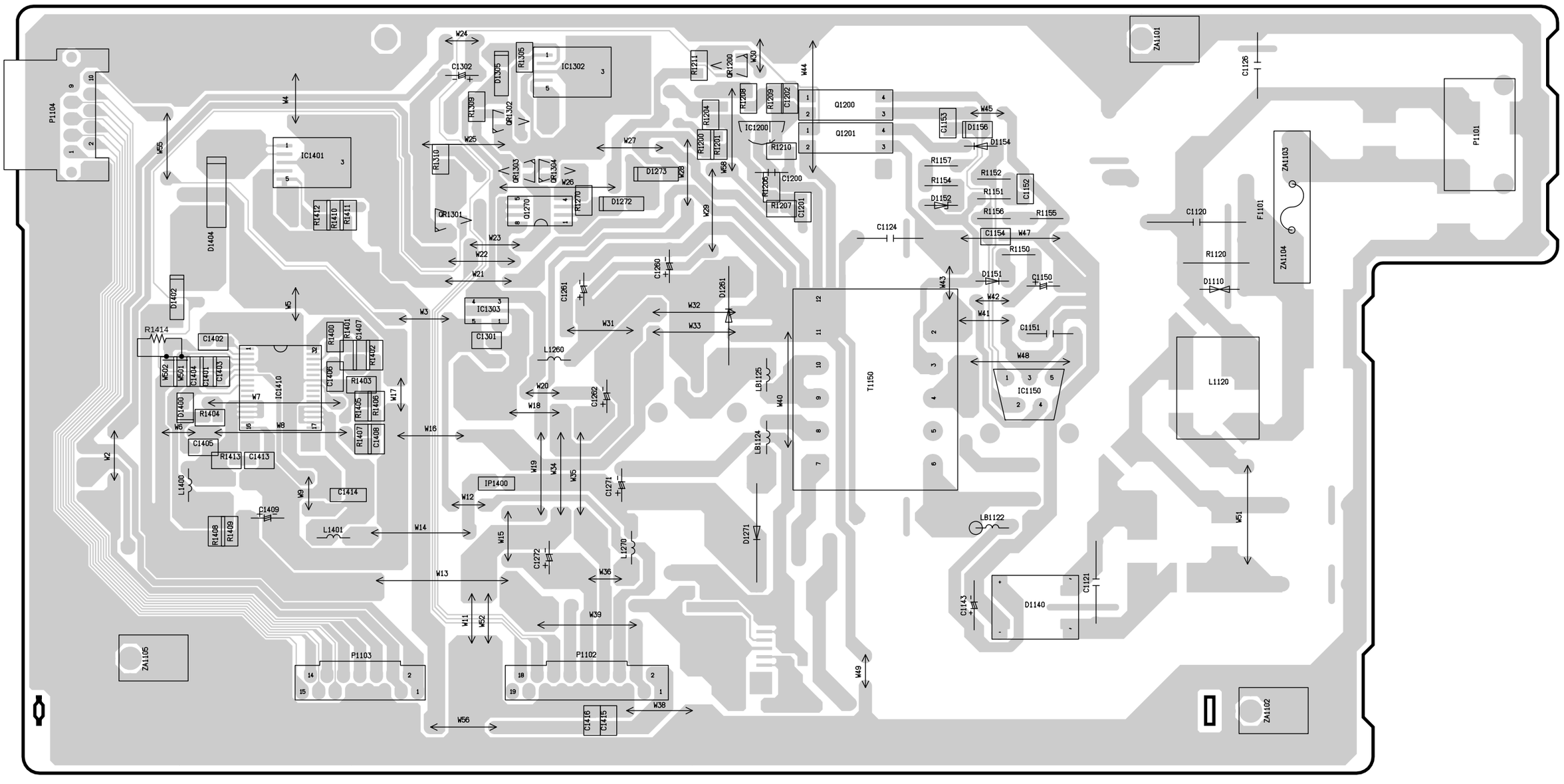
NOTE:DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERNT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

DMR-E50P/PC/PL
Sub Power Supply Section
(Main P.C.B. (1/5))
Schematic Diagram(P)

Power Supply P.C.B.

POWER P.C.B.

Integrated Circuit		Connector		Transistor		Diode		Transistor-resistor		IC Protector		Transformer		Coil		Fuse		Capacitor		Resistor	
IC1150	C-6	P1101	D-9	Q1200	D-5	D1110	D-7	QR1200	E-5	IP1400	B-3	T1150	C-5	L1400	B-2	F1101	D-8	C1120	D-7	R1120	D-7
IC1200	D-5	P1102	A-4	Q1201	D-5	D1140	B-6	QR1301	D-3					L1401	B-3			C1121	D-6	R1150	D-6
IC1302	E-4	P1103	A-3	Q1270	D-4	D1151	C-6	QR1302	D-3					L1260	C-4			C1122	D-6	R1151	D-6
IC1303	C-3	P1104	D-1			D1152	D-6							L1270	B-4			C1124	D-6	R1152	D-6
IC1401	D-2					D1154	D-6											C1126	D-6	R1154	D-6
IC1410	C-2					D1156	D-6											C1143	D-6	R1155	D-6
						D1261	C-5											C1150	D-6	R1156	D-6
						D1271	B-5											C1151	D-6	R1157	D-6
						D1272	D-4											C1152	D-6	R1200	D-5
						D1273	D-4											C1153	D-6	R1201	D-5
						D1305	E-3											C1154	D-6	R1204	D-5
						D1400	C-2											C1200	D-5	R1205	D-5
						D1402	C-2											C1201	D-5	R1206	D-5
						D1404	D-2											C1202	D-5	R1207	D-5
																		C1260	D-4	R1208	D-5
																		C1261	C-4	R1209	D-5
																		C1262	C-4	R1210	D-5
																		C1271	B-4	R1211	D-5
																		C1272	B-4	R1212	E-5
																		C1301	C-3	R1270	D-4
																		C1302	C-3	R1305	D-4
																		C1303	C-3	R1309	D-3
																		C1304	C-3	R1310	D-3
																		C1305	C-3	R1400	C-3
																		C1400	C-3	R1401	C-3
																		C1401	C-3	R1402	C-3
																		C1402	C-3	R1403	C-3
																		C1403	C-3	R1404	C-2
																		C1404	C-2	R1405	D-5
																		C1405	C-3	R1406	C-3
																		C1406	C-3	R1407	C-3
																		C1407	C-3	R1408	B-2
																		C1408	C-3	R1409	B-2
																		C1409	B-2	R1410	D-3
																		C1413	C-2	R1411	D-3
																		C1414	C-1	R1412	D-2
																				R1413	C-2
																				R1414	C-1



Power Supply P.C.B.
DMR-E50P/PC/PL (VEP01933A)

Ref No.	IC1150						IC1200					IC1302									
MODE	1	2	3	4	5		1	2	3			1	2	3	4	5					
REC	2.4	1.8	0	13.6	-480		4.7	2.5	0			5.5	5.7	0	5.0	5.0					
PLAY	2.4	1.8	0	13.6	-480		4.7	2.5	0			5.5	5.7	0	5.0	5.0					
STOP	2.4	1.8	0	13.6	-490		4.7	2.5	0			5.5	5.7	0	5.0	5.0					
Ref No.	IC1303						IC1401														
MODE	1	2	3	4	5		1	2	3	4	5										
REC	1.3	0	6.0	6.0	5.0		2.4	2.4	0	1.9	1.3										
PLAY	1.3	0	6.0	6.0	5.0		2.4	2.4	0	1.9	1.3										
STOP	1.3	0	6.0	6.0	5.0		2.4	2.4	0	1.9	1.3										
Ref No.	IC1410																				
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
REC	4.4	3.4	3.5	-0.1	0	13.8	0	6.6	0	0	-1.6	-1.5	-1.5	-1.5	0	-0.1	0	13.8	13.7	13.7	
PLAY	4.4	3.4	3.5	0	0	13.8	0	6.6	0	0	-1.7	-1.7	-1.7	-1.7	0	-0.1	0	13.9	13.9	13.9	
STOP	4.4	3.4	3.5	0	0	13.9	0	6.6	0	0	-1.7	-1.7	-1.7	-1.7	0	-0.1	0	13.9	13.9	13.9	
Ref No.	IC1410																				
MODE	21	22	23	24	25	26	27	28	29	30	31	32									
REC	13.7	0	-16.5	0	5.2	-0.1	0.1	4.9	0	1.4	0	2.4									
PLAY	13.9	0	-16.3	0	5.1	0	0.1	4.9	0	1.4	0	2.4									
STOP	13.9	0	-16.2	0	5.0	0	0	4.9	0	1.4	0	2.4									
Ref No.	Q1200					Q1201					Q1270										
MODE	1	2	3	4		1	2	3	4		1	2	3	4	5	6	7	8			
REC	5.7	4.7	0	1.8		0	0	0	6.1		12.6	12.6	12.6	0	12.6	12.6	12.6	12.6			
PLAY	5.7	4.7	0	1.7		0	0	0	6.1		12.7	12.7	12.7	0	12.7	12.7	12.7	12.7			
STOP	5.7	4.7	0	1.8		0	0	0	6.1		12.7	12.7	12.7	0	12.7	12.7	12.7	12.7			
Ref No.	QR1200				QR1301				QR1302				QR1303				QR1304				
MODE	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B		
REC	0	0	4.9		0	0	5.0		0	5.5	0		0	0	4.9		0	0	4.9		
PLAY	0	0	4.9		0	0	5.0		0	5.5	0		0	0	4.9		0	0	4.9		
STOP	0	0	4.9		0	0	5.0		0	5.5	0		0	0	4.9		0	0	4.9		

MAIN POWER SUPPLY P.C.B.

MAIN P.C.B.

AC SOCKET
P1101

F1101

D1110,L1120
SURGE SUPPRESSOR AND SURGE ABSORBER

D1140
C1143
RECTIFIER

T1150
POWER TRANSFORMER
P1
P2
B1
B2
S1B
S1A
S3A
S3B
S4

IP1400

IC1410
(DC-DC CONVERTER)
VCC
VDD
VOUT
R/C ON/OFF

IC1401
(REG.D+1.8V)
ON(H)
VIN
VOUT

D+1.8V — P1102 1,2 — PP1501 1,2 — A
D+3.3V — P1102 3,4 — PP1501 3,4 — B

QR1301
P ON (H) — P1102 14 — PP1501 14 — C

D

IC1150
(CONSTANT VOLTAGE CTL.)
0 CURRENT DET.
DRAIN
VCC

X SW+5.9V — P1102 8 — PP1501 8 — E

IC1303
(REG.+5.15V)
VIN
VOUT
ON(H)

X SW+5.15V — P1102 6 — PP1501 6

Q1270
REG.+12V
D+12V — (TO DVD RAM DRIVE)

QR1304

X SW+13V — P1102 10 — PP1501 10 — F

IC1302
(REG.+5V)
VIN
VOUT
ON(H)

D+5V — (TO DVD RAM DRIVE)

Q1200
PHOTO COUPLER

IC1200
SHUNT REG.

Q1201
PHOTO COUPLER

QR1200

QR1302
QR1303

P.SAVE(L) — FROM TIMER SEC.(IC7501-47)

JC P ON(H) — FROM TIMER SEC. (IC7501-38)

HOT

COLD

DMR-E50P/PC/PL
Power Supply Block Diagram

DIGITAL P.C.B.

A D+1.8V
B D+3.3V
C P ON (H)
D X SW+5.15V
E X SW+5.9V
F X SW+13V

IC1502
(REG.D+1.5V)
7 VIN
8 VIN
VOUT 1

IC7503
(SYS PFAIL(H)OUT)
2 VDD
OUT 1
QR7501
(SYS PFAIL(L)OUT)
(TO IC7501-10)

IC9001
(REG.SD+1.8V)
4 VIN
VO 5
VC 3

IC4011
(REG.AU+5V)
1 VIN
VOUT 3
ON(H) 2
QR4006,4012

IC1504
(REG.ANA+3.3V)
1 VIN
VOUT 3
ON(H) 2

IC1505
(REG.D+5V)
1 VIN
VOUT 3
ON(H) 2

IC1508
(REG.JC+5V)
4 VIN
VOUT 5
ON(H) 3

IC1513
(REG.ANA+5V)
4 VIN
VOUT 5
ON(H) 3

IC4010
(REG.AU+9V)
1 VIN
VOUT 3
ON(H) 2
QR4006,4007

IP7501
1
2

T7501
(POWER TRANS.)
4
6

IC50011
(REG.DAC+3.3V)
1 VIN
VOUT 6
ON(H) 3

IC50015
(REG.D+3.3V)
1 VIN
VOUT 6
ON(H) 3

D+1.8V	PP9702 5,6,26	P9002 5,6,26	D+1.8V(PSC 6)
REG.D+1.5V	PP9702 4,27	P9002 4,27	REG. D+1.5V(PSC 7)
D+3.3V	PP9703 15,16	P9003 15,16	D+3.3V(PSC 14)
REG.ANA+3.3V	PP9702 2,29	P9002 2,29	REG.ANA+3.3V(PSC 10)
X SW+5.9V	PP9702 3,28	P9002 3,28	X SW+5.9V(PSC 11)
REG.AU+5V	PP9702 22	P9002 22	REG.AU+5V(PSC 12)
REG.D+5V	PP9702 1,30	P9002 1,30	REG.D+3.3V(PSC 8)

X SW+5.15V(PSC 1)
JC REG.+5V(PSC 2)
TO TU7401-7, 13
JC P ON(H)
FROM TIMER SEC.
(IC7501-37)
REG.ANA+5V(PSC 3)
POWER ON(H)
FROM TIMER SEC.
(IC7501-39)
X SW+13V(PSC 5)
REG.AU+9V(PSC 4)
UNREG+38V
TO TU7401-9
REG.DAC+3.3V(PSC 13)

DMR-E50P/PC/PL
Power Supply Block Diagram

DMR-E50P/PC/PL
Power Supply Block Diagram

PSC 1. X SW +5.15V

Ref. No.	Pin. No.	Schematic Name
IC7501	98	Timer (Main)
IC7504	8	
IC7505	2	

PSC 2. JC REG. +5V

Ref. No.	Pin. No.	Schematic Name
IC3003	2,15,27	Video I/O (Main)
	41,45	
IC7405	8	Main Net (Main)

PSC 3. REG.ANA +5V

Ref. No.	Pin. No.	Schematic Name
IC3005	6,11	Video I/O (Main)

PSC 4. REG.AU +9V

Ref. No.	Pin. No.	Schematic Name
IC4002	16	Audio Main (Main)
IC4003	8	
IC4009	8	
IC4012	8	

PSC 5.X SW +13V

Ref. No.	Pin. No.	Schematic Name
IC7507	8	Timer (Main)

PSC 6. D +1.8V

Ref. No.	Pin. No.	Schematic Name
IC3203	39,64,88	AV Input (Digital)
	109,131,156	
IC3402	7,19,32,44	AV Encoder (Digital)
	59,71,84,96	
	111,123,136	
	148,163,175	
	188,198	
IC3406	26,69,107	
	153	

PSC 7. REG.D +1.5V

Ref. No.	Pin. No.	Schematic Name
IC50003	12,30,48	AV Decoder (Digital)
	69,98,127	
	135,172,186	

PSC 8. REG.D +3.3V

Ref. No.	Pin. No.	Schematic Name
IC50001	5,6	AV Decoder (Digital)

PSC 9.REG.SD +1.8V

Ref. No.	Pin. No.	Schematic Name
IC6004	21,55,75	Syscon (Digital)
	111,122,153	
	184,203	

PSC 10. REG.ANA +3.3V

Ref. No.	Pin. No.	Schematic Name
IC3203	2,11,12,21	AV Input (Digital)
	26,30	
IC3402	30	AV Encoder (Digital)
IC50003	105,112,118	AV Decoder (Digital)

PSC 11. X SW +5.9V (Not Used)

PSC 12. REG.AU +5V

Ref. No.	Pin. No.	Schematic Name
IC4402	8	AV Input (Digital)
IC4403	5	
IC50010	6	AV Decoder (Digital)

PSC 13. REG.DAC +3.3V

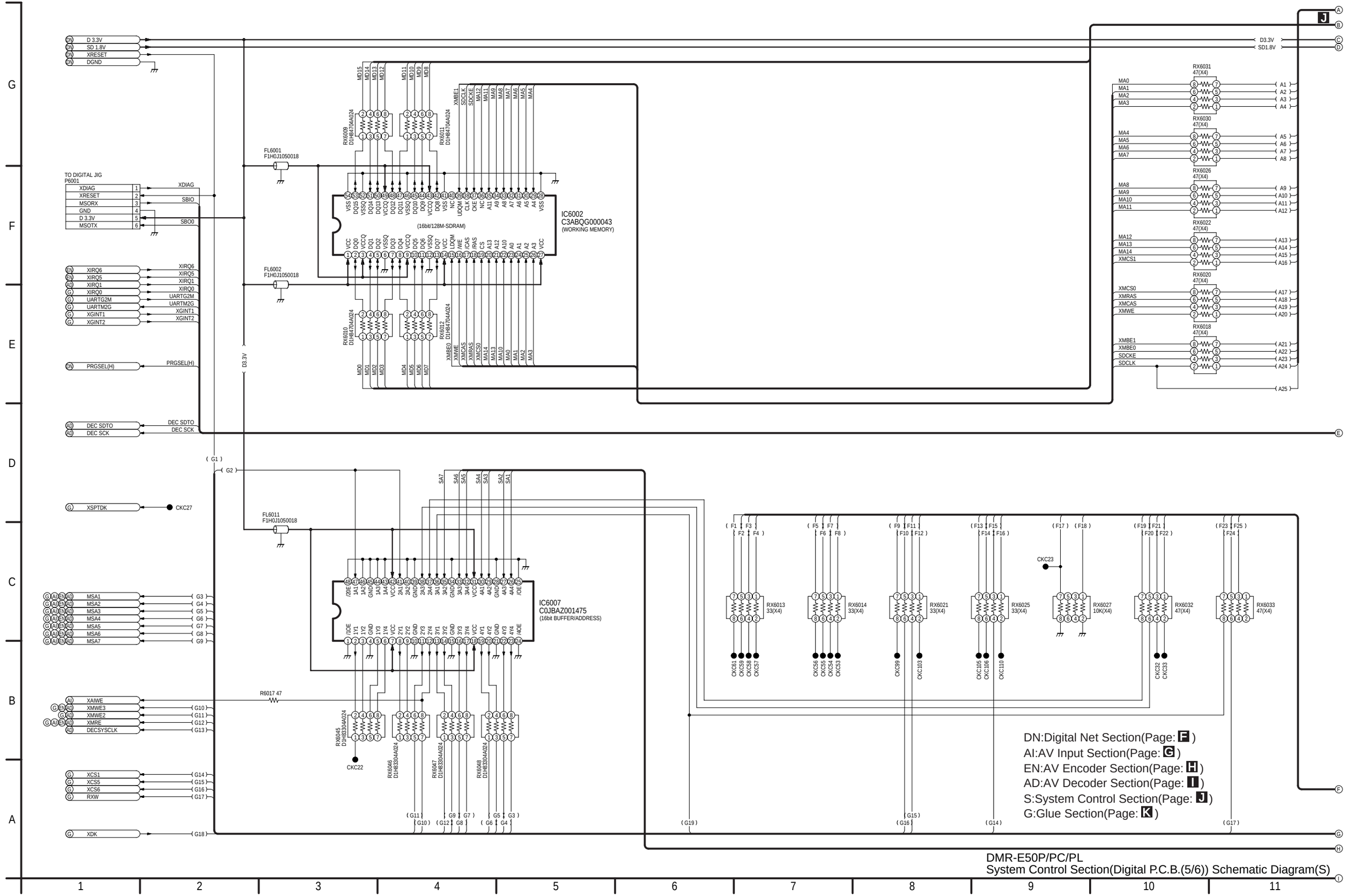
Ref. No.	Pin. No.	Schematic Name
IC4403	14	AV Input (Digital)
IC50010	5	AV Decoder (Digital)

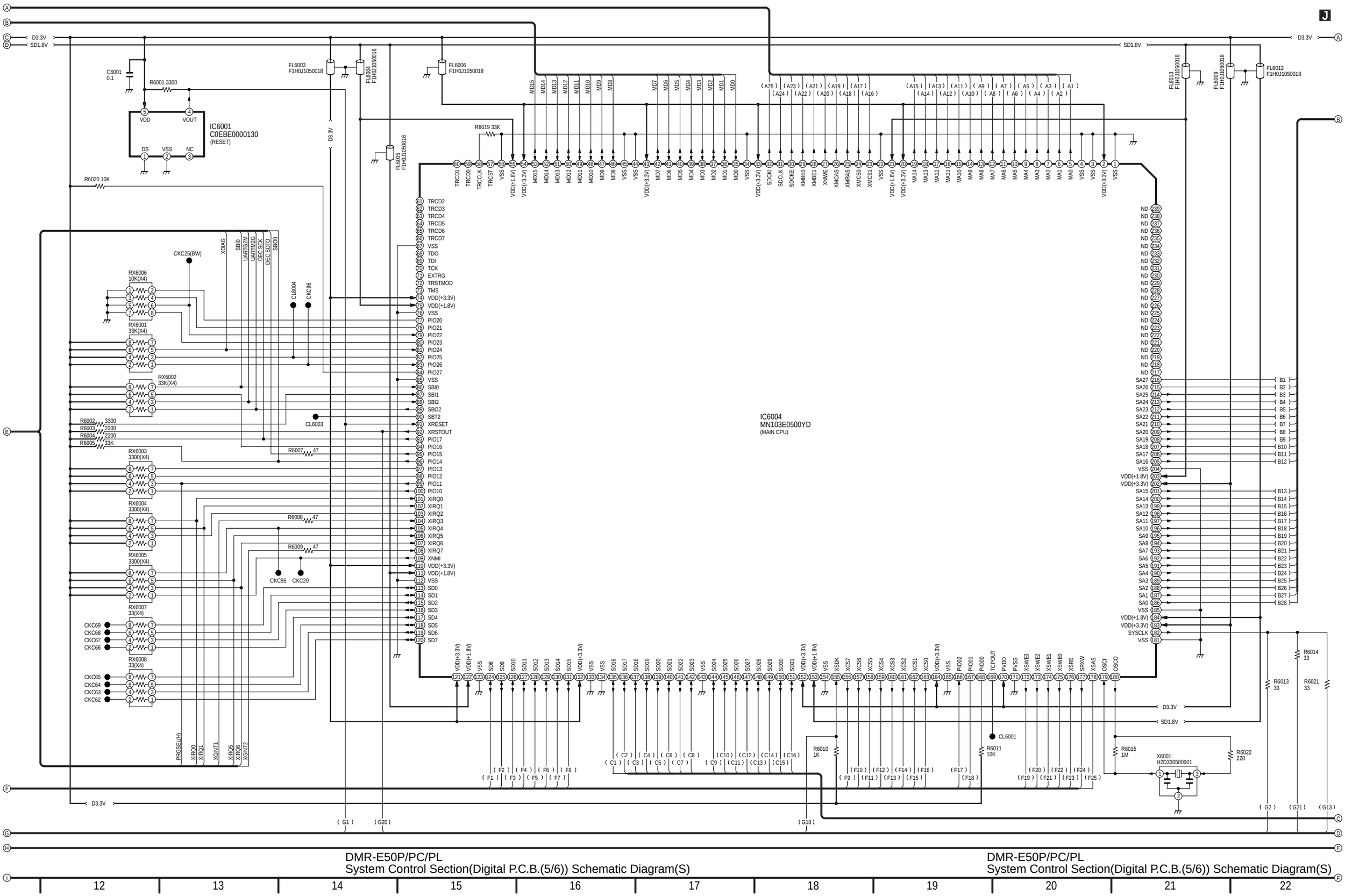
PSC 14. D +3.3V

Ref. No.	Pin. No.	Schematic Name
IC3201	1,7,13,25	AV Input (Digital)
	38,44	
IC3202	7,12,19,25	
	30,37,42,48	
IC3203	31,38,45	
	52,58,65	
	71,78,84	
	91,108,119	
	130,137,145	
	159,166,179	
IC3204	5	
IC3205	5	
IC3401	1,3,9,15,29	AV Encoder (Digital)
	35,41,43,49	
	55,75,81	
IC3402	4,14,22,34	
	46,50,57,66	
	75,83,91	
	100,110,118	
	126,132,139	
	145,152,160	
	167,172,181	
	185,192,199	
	202,205	
IC3403	1,3,9,14	
	27,43,49	
IC3404	1,3,9,14	
	27,43,49	
IC3406	7,15,31,43	
	47,54,70,81	
	88,91,99,106	
	114,125,130	
	138,152,168	

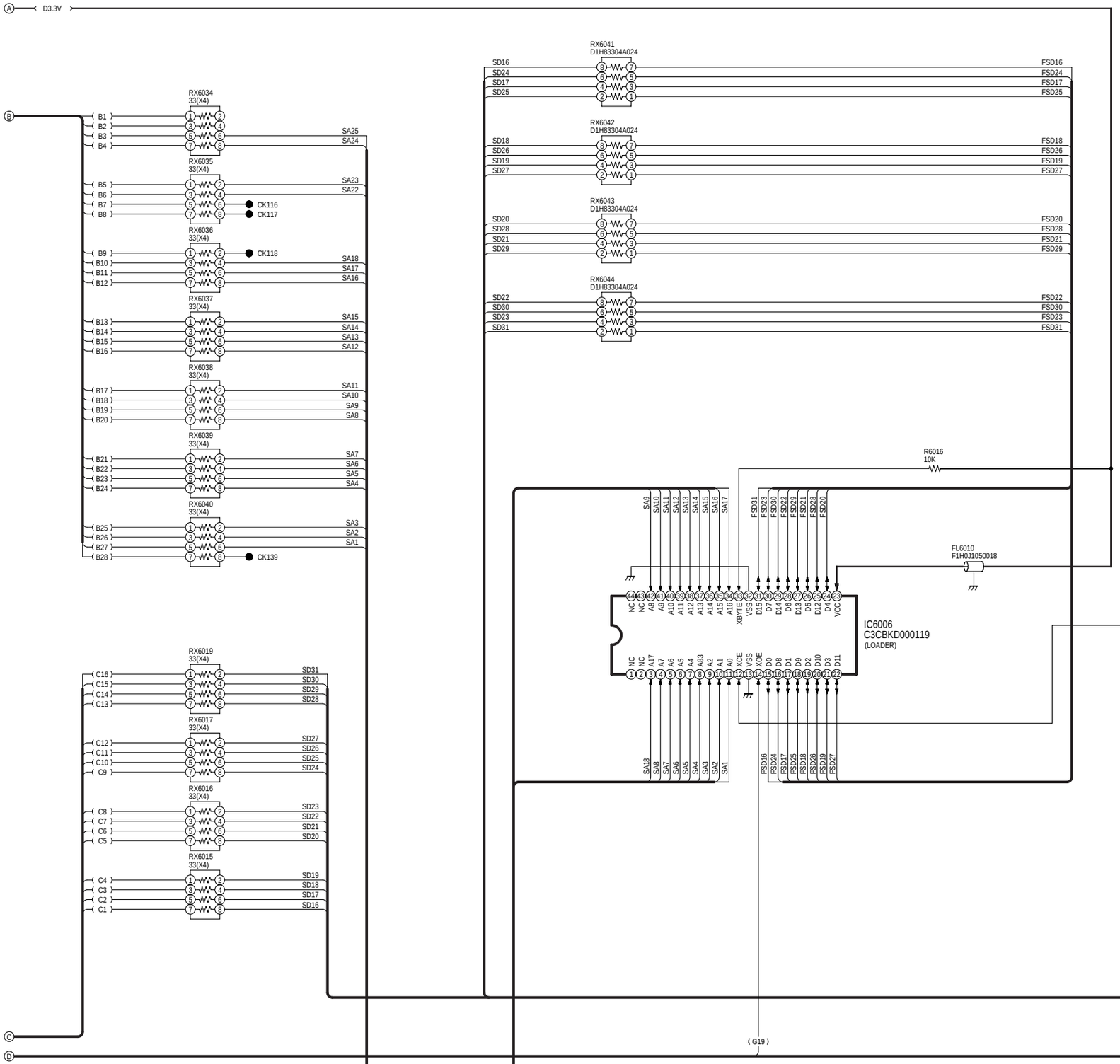
PSC 14. D +3.3V

Ref. No.	Pin. No.	Schematic Name
IC50001	1,11,14,19	AV Decoder (Digital)
IC50002	1,3,9,14	
	27,43,49	
IC50003	5,15,26,39	
	52,58,66,75	
	89,103,131	
	144,152,157	
	165,175,184	
	194,203	
IC50004	1,3,9,14	
	27,43,49	
IC50005	5	
IC50006	5	
IC50013	5	
IC50014	14	
IC6001	5	Syscon (Digital)
IC6002	1,3,9,14	
	27,43,49	
IC6004	2,20,33,43	
	54,74,110	
	121,132,152	
	164,170,183	
	202	
IC6006	23	
IC6007	7,18,31,42	
IC6701	29,57,82	GLUE (Digital)
	103,134,161	
	184,204,206	
IC6702	5	
IC6703	23,44	


D 3.3V
SD 1.8V
XRESET
DGND
TO DIGITAL JIG
P6001
XDIAG
XRESET
MSORX
GND
D 3.3V
MSOTX
XDIAG
SBIO
SBO0
XIRQ6
XIRQ5
XIRQ1
XIRQ0
UARTG2M
UARTM2G
XGINT1
XGINT2
PRGSEL(H)
DEC SDTO
DEC SCK
XSPTDK
CKC27
MSA1
MSA2
MSA3
MSA4
MSA5
MSA6
MSA7
XAIWE
XMWE3
XMWE2
XMRE
DECSYSCLK
XCS1
XCS5
XCS6
RXW
XDK
FL6001
F1H0JJ1050018
FL6002
F1H0JJ1050018
FL6011
F1H0J1050018
IC6002
C3ABQG000043
(WORKING MEMORY)
(16bit/128M-SDRAM)
IC6007
C0JBAZ001475
(16bit BUFFER/ADDRESS)
R6017 47
CKC22
RX6031
47(X4)
RX6030
47(X4)
RX6026
47(X4)
RX6022
47(X4)
RX6020
47(X4)
RX6018
47(X4)
RX6013
33(X4)
RX6014
33(X4)
RX6021
33(X4)
RX6025
33(X4)
RX6027
10K(X4)
RX6032
47(X4)
RX6033
47(X4)
DN:Digital Net Section(Page: F)
AI:AV Input Section(Page: G)
EN:AV Encoder Section(Page: H)
AD:AV Decoder Section(Page: I)
S:System Control Section(Page: J)
G:Glue Section(Page: K)
DMR-E50P/PC/PL
System Control Section(Digital P.C.B.(5/6)) Schematic Diagram(S)


J
D3.3V
SD1.8V
C6001 0.1
R6001 3300
IC6001
C0EBE0000130
(RESET)
VDD
VOUT
DS
VSS
NC
FL6003 F1H0J1050018
FL6004 F1H0J1050018
FL6005 F1H0J1050018
FL6006 F1H0J1050018
FL6012 F1H0J1050018
FL6013 F1H0J1050018
FL6009 F1H0J1050018
R6019 33K
R6020 10K
IC6004
MN103E0500YD
(MAIN CPU)
CKC25(BW)
XDIAG
SBI0
UARTC2M
UARTM2C
DEC SCK
DEC SDTO
SBO0
RX6006 10K(X4)
RX6001 33K(X4)
RX6002 33K(X4)
RX6003 3300(X4)
RX6004 3300(X4)
RX6005 3300(X4)
RX6007 33(X4)
RX6008 33(X4)
R6002 3300
R6003 2200
R6004 2200
R6005 33K
R6007 47
R6008 47
R6009 47
CL6004
CKC96
CL6003
CKC95
CKC20
CKC69
CKC68
CKC67
CKC66
CKC65
CKC64
CKC63
CKC62
PRGSEL(H)
XIRQ0
XIRQ1
XGINT1
XIRQ5
XIRQ6
XGINT2
R6010 1K
R6011 10K
CL6001
R6015 1M
X6001 H2D330500001
R6022 220
R6014 33
R6013 33
R6021 33
(G1)
(G20)
(G18)
(G2)
(G21)
(G13)
DMR-E50P/PC/PL
System Control Section(Digital P.C.B.(5/6)) Schematic Diagram(S)
DMR-E50P/PC/PL
System Control Section(Digital P.C.B.(5/6)) Schematic Diagram(S)
12
13
14
15
16
17
18
19
20
21
22

DN:Digital Net Section(Page: F)
AI:AV Input Section(Page: G)
EN:AV Encoder Section(Page: H)
AD:AV Decoder Section(Page: I)
S:System Control Section(Page: J)
G:Glue Section(Page: K)



NOTE:
DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING.WHEN YOU ORDER A PART,PLEASE REFER TO PARTS LIST.

DMR-E50P/PC/PL
System Control Section(Digital P.C.B.(5/6)) Schematic Diagram(S)

DMR-E50P/PC/PL
System Control Section(Digital P.C.B.(5/6)) Schematic Diagram(S)

P:Sub Power Supply Section(Page: A)
M:Main Net Section(Page: B)
V:Video I/O Section(Page: C)
A:Audio Main Section(Page: D)
T:Timer Section(Page: E)

DP7501
A2BD00000058
DISPLAY

TL7501

TL7538

IC7501
C2BBGF000414
(TIMER)

TO P7001
FRONT(L)P.C.B.
P7501

Q7510
2SD0601A0L
(DISPLAY DRIVE)

Q7511
2SD0601A0L
(DISPLAY DRIVE)

L7502
G0C220JA0019

X7502
H0D419400020
(4.194MHz)

TL7505

TL7506

TL7507

TL7504

K7504
EB3GEYGR00V

DMR-E50P/PC/PL
Timer Section(Main P.C.B. (5/5))Schematic Diagram(T)

P:Sub Power Supply Section(Page: A)
M:Main Net Section(Page: B)
V:Video I/O Section(Page: C)
A:Audio Main Section(Page: D)
T:Timer Section(Page: E)

E

(A2) (A3) (A1)

R7518 330
LB7508 G0ZZ00001936
D7502 MAZ4240NMF
C7525 50V10
C7526 0.1
C7524 0.01
R7519 3.9
IP7501 D4FAR4000001
X SW 13V (P)
T7501 ETS13TB119AP (POWER TRANS.)
D7503 ERA22-02
C7529 6V220
L7501 100
D7506 MA2C18500E
C7532 35V47
R7588 47K
C7531 0.022
C7528 16V220
R7521 3300
D7505 MA2C18500E
C7533 50V10
R7524 100
D7507 MAZ4300NM
Q7501 2SD1994BR1VT
Q7502 2SD0601A0L
R7522 100K
R7523 100K
QR7504 UN5113TW (P.SAVE(L):ON)
A7 → LED WARP ON(H) (P)
A9 → POWER ON(H) (M)(P)(A)
A10 → DR P ON(H) (P)
A11 → JC P ON(H) (P)
A4 → P SAVE(L) (P)
UNREG38V (M)
DDGND (P)
GND (P)
X SW 5.15V (P)

C7543 100P
C7544 100P
C7545 100P
R7545 15K
D7514 B0JACE000001
D7513 B0JACE000001
C7546 0.1
R7564 1000
B7501 CR2032-1GUF
BACK-UP BATTERY
TL7503
IC7504 C0ZBZ0000732
VDD SIO SCK CS
INT XIN XOUT VSS
TL7502
X7501 H0A327200032 (32.768MHz)
C7547 3P
C7548 3P
R7557 0

C7585 0.01
IC7507 NJM2904M (FAN MOTOR DRIVE)
Q7509 2SD0874A0L (FAN MOTOR DRIVE)
R7601 820
R7602 18K
C7586 16V47
R7600 10K
C7587 0.01
R7563 47K
TO FAN MOTOR P7503
1 FANPWM
2 GND
3 FANLOCK(H)
FAN GND (P)

IC7505 C0EBH0000263 (RESET)
CD NC OUT VDD GND
C7518 0.1

IC7503 C0EBF0000182 (SYS PFAIL(H)OUT)
NC NC OUT VDD GND
QR7501 UNR521200L (SYS PFAIL(H)OUT)
R7550 15K
R7555 47K
D3.3V (P)

NOTE:DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERNT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

(B14) (B13) (B10) (B12) (B11)

DMR-E50P/PC/PL
Timer Section(Main P.C.B. (5/5))Schematic Diagram(T)

DMR-E50P/PC/PL
Timer Section(Main P.C.B. (5/5))Schematic Diagram(T)

FRONT(L)P.C.B.

S7003
POWER

KEY IN2(L)

P7001 3 | P7501 3
P7001 4 | P7501 4
KEY IN2(R)

KEY IN2

IC7501
(TIMER)

100 KEY IN2

IR7001
REMOTE CTL.
RECEIVER
3 2 1

N SW+5V

P7001 1 | P7501 1

30 REMOTE CTL.

KEY IN3(L)

P7001 5 | P7501 5
P7001 6 | P7501 6
KEY IN3(R)

KEY IN3

99 KEY IN3

P7801 7 | P7104 7 | P1103 8 | PP1503 8
P7801 8 | P7104 8 | P1103 6 | PP1503 6

CH-UP S7808
MODE S7809
ERASE S7810
TIME-WARP S7811
PLAY S7812

REC S7802
CH-DOWN S7803
SKIP-R S7804
STOP S7805

TRAY S7801

BLIND OPEN(H)

P7801 5 | P7104 5 | P1103 11 | PP1503 11

TO DIGITAL P.C.B.
(GLUE SEC.IC6701- 148)

KEY IN1(R)

P7801 6 | P7104 6 | P1103 10 | PP1503 10

1 KEY IN1

X SW5.15V
TIME-WARP
D7801
QR7801
(TIME-WARP LED DRIVE)

TIME-WARP LED(H)

P7801 4 | P7104 4 | P1103 12 | PP1503 12

43 TIME-WARP LED(H)

SKIP-F S7815
OPEN/CLOSE S7816

FRONT(R)P.C.B.

SEG1 80
SEG33 48
DGT8 81
DGT3 86

SEG1~SEG33
DGT3~DGT8

DP7501
FIP
DISPLAY

F+
F-

T7501
1 DISPLAY REGULATOR 5
4

1G 2G

DGT2 87
DGT1 88

Q7511
(DISPLAY DRIVE)
Q7510
(DISPLAY DRIVE)

N SW+5V

IP7501
1 IC PROTECTOR 2

X SW13V

IC7507
(FAN MOTOR DRIVE)
5 B+IN A OUT 1

Q7509
(FAN MOTOR DRIVE)

FAN DC OUT 96

FANPWM

P7503 1 | P7503 3

FAN MOTOR

FAN LOCK(H) 9

P SAVE(L) 47
POWER ON(H) 39
DR P ON(H) 38
JC P ON(H) 37

P SAVE(L)
POWER ON(H)
DR P ON(H)
JC P ON(H)

TO POWER SUPPLY

IC7504
(REAL TIME IC)

REAL TIME CS 19 — 5 CS
REAL TIME CLK 34 — 6 SCK
REAL TIME SO 35 — 7 SIO
REAL TIME SI 36
5V(D) 24 — 8 VDD

XOUT 3
XIN 2

X7501
32.768MHz

X SW 5.15V

B7501
BACKUP
BATTERY

IN 22
OUT 23

X7502
4.194MHz

AUDIO MUTE(L) 20

XT MUTE

TO ANALOG AUDIO
(QR4002,4005)

L1/L2/L3 DET 3

L123 SWIDE

(IC3003- 29)

EXT SYNC(H) 16

EXT SYNC(H)

(QR3011,Q3012)

VIDEO MUTE(L) 8

VIDEO MUTE(L)

(IC3005- 2 , 15)

TO/FROM
ANALOG VIDEO

DMR-E50P/PC/PL
Timer Block Diagram

P:Sub Power Supply Section(Page: A)
M:Main Net Section(Page: B)
V:Video I/O Section(Page: C)
A:Audio Main Section(Page: D)
T:Timer Section(Page: E)

JK3901
K1U822B00001

JSB IN(R) | LINE IN(R) | JSB IN(L) | LINE IN(R) | CPS L3 IN | CPS L1 IN | CPN L3 IN | CPN L1 IN

JK3902
K1U820B00002:EXCEPT E50
K1U412B00001:E50

LINE OUT2(R) | LINE OUT1(R) | LINE OUT2(L) | LINE OUT1(L) | LINE OUT V2 | LINE OUT V1 | CPN OUT2 | CPN OUT1

C

IC3002
C2BBFE000130
(DATA SLICE)

IC3003
C1AB00001735
(VIDEO AGC)

Q3015
2SB1218A
(AMP)

Q3004
2SB1218A
(BUFFER)

Q3005
2SD1819A0L
(BUFFER)

Q3006
2SB1218A0L
(BUFFER)

Q3012
2SD1819A0L
(EXT-SYNC(L)OUT)

QR3011
UN5113TW
(EXT-SYNC(H) OUT)

L3018 G0C120JA0019
L3017 G0C120JA0019
L3006 G0C120JA0019

ANA 5V
JC REG 5V
D5V

C

P:Sub Power Supply Section(Page: A)
M:Main Net Section(Page: B)
V:Video I/O Section(Page: C)
A:Audio Main Section(Page: D)
T:Timer Section(Page: E)

JK3903
K1U407B00001

RED BLUE GREEN

COMPONENT VIDEO OUT (525P/525I)

DIGITAL AUDIO OUT

GND VCC IN

LB3908 J0JCC0000103
LB3909 J0JCC0000103
LB3910 J0JCC0000103

C4904 0.1
C4903 6.3V47

R3920 75
R3926 75
R3927 75

L4901 22u

R4901 0
R4903 0
C4906 22P

IECOUT (M)

(A36) (A37) (A38)

R3108 10K
C4902 0.1
C4901 10V100

ANA 5V

L3003 G0C120JA0019
C3012 0.01
C3017 0.01
C3008 0.01
C3009 6V47
R3007 1K

L3001 G0C120JA0019
L3002 G0C220JA0019
R3006 100
C1
R3004 560
C3004 47P
C3007 39P
R3005 10K
Q3001 2SB1218A (BUFFER)

R3011 1K

L3004 G0C120JA0019
L3005 G0C220JA0019
R3010 100
C2
R3008 560
C3010 68P
C3011 39P
R3009 10K
Q3002 2SB1218A (BUFFER)

R3024 1K

L3010 G0C4R7JA0019
L3014 G0C120JA0019
R3028 100
C3
R3025 560
C3018 22P
C3020 33P
R3029 10K
Q3003 2SA153200L (BUFFER)

QR3010 UNR521300L (PROGRESSIVE)
QR3001 UNR521100L (PROGRESSIVE)
C3001 47P

Q3011 2SC39300 (PROGRESSIVE)
R3106 1K
R3107 47K
C3019 33P
L3023 G0C120JA0019

QR3009 UNR521300L (PROGRESSIVE)
QR3002 UNR521300L (PROGRESSIVE)
QR3007 UNR521300L (PROGRESSIVE)

R3043 1K
R3044 150
R3045 150
L3015 G0C4R7JA0019
C3002 47P
C3072 47P
R3046 2200
Q3008 2SD1819A0L (BUFFER)
QR3004 UNR521100L (PROGRESSIVE)

L3019 6.8u
L3020 G0C120JA0019
R3042 100
C5
R3001 560
C3005 56P
C3016 22P
C3006 39P
R3002 10K
Q3007 2SB1218A (BUFFER)
QR3008 UNR521300L (PROGRESSIVE)

R3048 1K
R3049 150
R3050 150
L3016 G0C4R7JA0019
C3003 47P
C3073 47P
R3051 2200
Q3010 2SD1819A0L (BUFFER)
QR3005 UNR521100L (PROGRESSIVE)

L3021 6.8u
L3022 G0C120JA0019
R3047 100
C4
R3052 560
C3074 56P
C3014 22P
C3075 39P
R3053 10K
Q3009 2SB1218A (BUFFER)
QR3006 UNR521300L (PROGRESSIVE)

(C6) (C10)

(A27) (A32) (A26) (A28) (A38) (A38) (A37) (A36)

R3084 9.1K
C3906 0.01
C3057 0.1
R3070 0
R3086 0

C3055 6V1000
C3056 6V100
C3058 56P
C3059 6V1000
L3012 G0C4R7-JA0019
C3060 6V100
C3061 6V1000
C3062 6V100
C3063 6V330
C3064 6V330

IC3005
C9ZB00000377
(VIDEO DRIVE)

COUT TEST MIX/OUT MIX/FB GND YTRAP GND YOUT YFB GND PY/OUT PY/FB GND PB/OUT PR/OUT
75Ω 6dB

1.5-6M BPF
CLAMP
6M LPF
CLAMP
12M LPF
6M LPF
6M LPF

CTRAP MUTE1 BIN GND YIN VCC GND PYIN GND PYTRAP VCC PBIN GND PBIN MUTE2 PRTRAP
20K

L3007 G0C4R7JA0019
C3043 56P

L3008 G0C220JA0019
C3047 0.01
C3046 6V47
C3044 0.1
C3045 1
C3048 1
L3009 G0C4R7-JA0019
C3052 6V47
C3053 6V47
C3049 15P

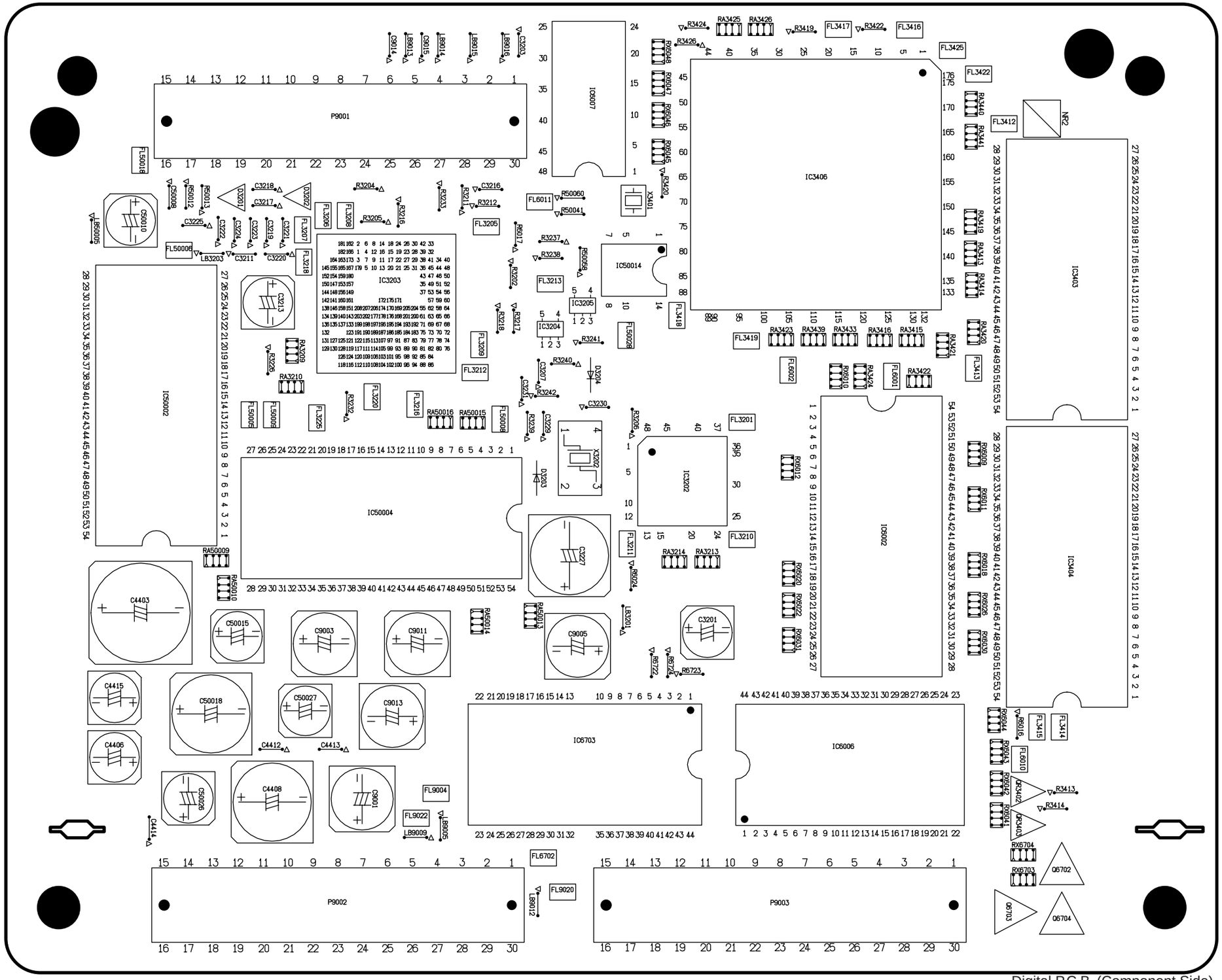
(A16) L1 IN L (A)
(A15) L3 IN L (A)
(A14) L1 IN R (A)
(A13) L3 IN R (A)
(A31) CPNCIN DM (M)
(A30) V YIN DM (M)
(A35) L123 SWIDE (T)

GND (P)
AU GND (A)

NOTE:DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWNIN THE PARTS LIST, AND MAY BE SLIGHTLYDIFFERNT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

DMR-E50P/PC/PL
Video I/O Section(Main P.C.B. (3/5))Schematic Diagram(V)

12 13 14 15 16 17 18 19 20 21 22



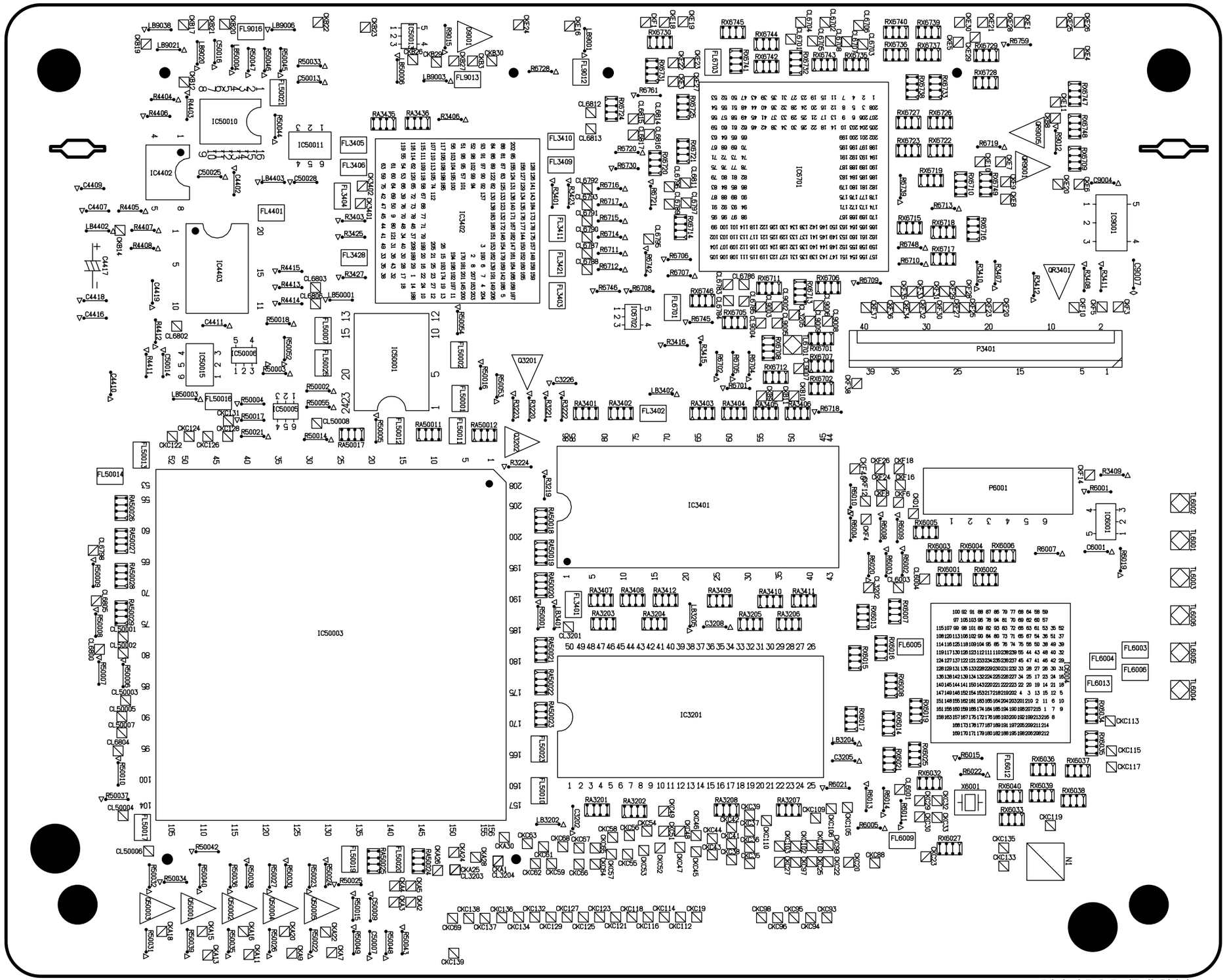
DIGITAL P.C.B.

(COMPONENT SIDE)

OVER VIEW

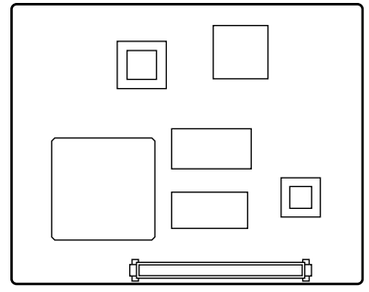
Digital P.C.B. (Component Side)
DMR-E50P : (REP3496B)
DMR-E50PC : (REP3496BD)
DMR-E50PL : (REP3496BC)

DIGITAL P.C.B.



(FOIL SIDE)

OVER VIEW



Digital P.C.B. (Foil Side)
DMR-E50P : (REP3496B)
DMR-E50PC : (REP3496BD)
DMR-E50PL : (REP3496BC)

Ref No.	IC1502									IC1504						IC1505				
MODE	1	2	3	4	5	6	7	8		1	2	3	4	5		1	2	3	4	5
REC	1.5	1.5	3.3	3.3	0	0	1.8	1.8		4.8	5.0	0	3.3	3.3		4.8	5.9	0	5.0	5.0
PLAY	1.5	1.5	3.3	3.3	0	0	1.8	1.8		4.8	5.0	0	3.3	3.3		4.8	5.9	0	5.0	5.0
STOP	1.5	1.5	3.3	3.3	0	0	1.9	1.9		4.8	5.0	0	3.3	3.3		4.8	5.9	0	5.0	5.0

Ref No.	IC1508						IC1513													
MODE	1	2	3	4	5		1	2	3	4	5									
REC	1.2	0	4.9	5.9	4.9		1.2	0	4.8	5.9	5.0									
PLAY	1.2	0	4.9	5.9	4.9		1.2	0	4.8	5.9	5.0									
STOP	1.2	0	4.9	5.9	4.9		1.2	0	4.8	5.9	5.0									

Ref No.	IC3002																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
REC	5.0	0	0	0	0	0	0	0	5.0	5.0	5.0	0.1	0	0	0	0	0	0	2.1	2.0
PLAY	5.0	0	0	0	0	0	0	0	5.0	5.0	0.1	0.1	0	0	0	0	0	0	2.2	2.0
STOP	5.0	0	0	0	0	0	0	0	5.0	5.0	0.1	0.1	0	0	0	0	0	0	2.1	2.0

Ref No.	IC3002																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
REC	0	5.0	1.1	2.0	0.2	2.0	5.0	5.0	0	5.0	5.0	0	0	0	0	0	0	0	0	0
PLAY	0	5.0	1.1	2.0	0.2	2.0	5.0	5.0	0	5.0	5.0	0	0	0	0	0	0	0	0	0
STOP	0	5.0	1.1	2.0	0.2	2.0	5.0	5.0	0	5.0	5.0	0	0	0	0	0	0	0	0	0

Ref No.	IC3002																			
MODE	41	42																		
REC	0	0																		
PLAY	0	0																		
STOP	0	0																		

Ref No.	IC3003																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
REC	1.5	4.9	1.8	0	1.8	4.7	1.5	0	0.1	2.7	0	1.5	4.7	1.5	4.9	0.1	2.7	0.1	1.5	4.7
PLAY	1.5	4.9	2.2	0	1.8	4.7	1.5	0	0.1	2.7	0	1.5	4.7	1.5	4.9	0.1	2.7	0.1	1.5	4.7
STOP	1.5	4.9	1.8	0	1.8	4.7	1.5	0	0.1	2.7	0	1.5	4.7	1.5	4.9	0.1	2.7	0.1	1.5	4.7

Ref No.	IC3003																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
REC	1.5	0	0.1	2.7	0	1.5	4.9	2.7	4.6	4.9	4.9	0	0	0	2.3	1.1	1.6	1.9	0	1.2
PLAY	1.5	0	0.1	2.7	0	1.5	4.9	2.7	4.6	4.9	4.9	0	0	0	2.3	1.1	1.6	1.9	0	1.1
STOP	1.5	0	0.1	2.7	0	1.5	4.9	2.7	4.6	4.9	4.9	0	0	0	2.3	1.1	1.6	1.9	0	1.2

Ref No.	IC3003																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52								
REC	4.9	1.6	0	1.6	4.9	0.2	1.9	2.2	1.7	0.7	1.8	1.8								
PLAY	4.9	1.6	0	1.6	4.9	0.2	1.8	2.2	1.7	0.7	1.8	1.8								
STOP	4.9	1.6	0	1.6	4.9	0.2	1.9	2.2	1.7	0.7	1.8	1.8								

Ref No.	IC3005																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
REC	2.0	4.9	2.7	0	2.5	4.9	0	2.5	0	1.9	4.9	2.8	0	2.8	4.9	2.1	2.3	0	2.3	0
PLAY	2.0	4.9	2.7	0	2.5	4.9	0	2.5	0	1.9	4.9	2.8	0	2.8	4.9	2.2	2.3	0	2.3	0
STOP	2.0	4.9	2.7	0	2.5	4.9	0	2.5	0	1.9	4.9	2.8	0	2.8	4.9	2.1	2.3	0	2.3	0
Ref No.	IC3005																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32								
REC	2.0	2.1	0	2.1	2.1	0	2.0	0	2.1	2.1	0	2.3								
PLAY	2.0	2.0	0	2.1	2.1	0	2.0	0	2.1	2.1	0	2.3								
STOP	2.0	2.1	0	2.1	2.1	0	2.0	0	2.1	2.1	0	2.3								
Ref No.	IC4002																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16				
REC	6.0	6.0	6.0	6.0	6.0	0	0	0	11.9	11.9	6.0	6.0	6.0	6.0	6.0	12.0				
PLAY	6.0	6.0	6.0	6.0	6.0	0	0	0	11.9	11.9	6.0	6.0	6.0	6.0	6.0	12.0				
STOP	6.0	6.0	6.0	6.0	6.0	0	0	0	11.9	11.9	6.0	6.0	6.0	6.0	6.0	12.0				
Ref No.	IC4003									IC4009										
MODE	1	2	3	4	5	6	7	8		1	2	3	4	5	6	7	8			
REC	6.0	6.0	6.0	0	6.0	6.0	6.0	12.0		6.0	6.0	6.0	0	6.0	6.0	6.0	12.0			
PLAY	6.0	6.0	6.0	0	6.0	6.0	6.0	12.0		6.0	6.0	6.0	0	6.0	6.0	6.0	12.0			
STOP	6.0	6.0	6.0	0	6.0	6.0	6.0	12.0		6.0	6.0	6.0	0	6.0	6.0	6.0	12.0			
Ref No.	IC4010						IC4011						IC4012							
MODE	1	2	3	4	5		1	2	3	4	5		1	2	3	4	5	6	7	8
REC	13.1	13.8	0	12.0	12.0		5.7	5.9	0	5.0	5.0		6.0	6.0	6.0	0	6.0	6.0	6.0	12.0
PLAY	13.2	13.9	0	12.0	12.0		5.7	5.9	0	5.0	5.0		6.0	6.0	6.0	0	6.0	6.0	6.0	12.0
STOP	13.2	13.9	0	12.0	12.0		5.7	5.9	0	5.0	5.0		6.0	6.0	6.0	0	6.0	6.0	6.0	12.0
Ref No.	IC7405																			
MODE	1	2	3	4	5	6	7	8												
REC	0	2.4	1.8	0	2.8	2.4	3.2	4.9												
PLAY	0	2.4	1.8	0	2.8	2.4	3.2	4.9												
STOP	0	2.4	1.8	0	2.8	2.4	3.3	4.9												
Ref No.	IC7501																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
REC	4.9	0	4.6	4.9	0	0	0	4.9	2.5	0	0	0	4.9	0	4.9	0.1	0	4.9	0.5	4.9
PLAY	4.9	0	4.6	4.9	0	0	0	4.9	2.5	0	0	0	4.9	0	4.9	0.1	0	4.9	0.5	4.9
STOP	4.9	0	4.6	4.9	0	0	0	4.9	2.5	0	0	0	4.9	0	4.9	0.1	0	4.9	0.5	4.9
Ref No.	IC7501																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
REC	0	2.2	2.4	4.9	5.0	5.0	4.9	0	0	4.8	0	5.0	4.9	4.8	4.5	4.5	4.9	4.9	4.9	0
PLAY	0	2.2	2.4	4.9	5.0	5.0	4.9	0	0	4.8	0	5.0	4.9	4.8	4.5	4.5	4.9	4.9	4.9	0.1
STOP	0	2.3	2.4	4.9	5.0	5.0	4.9	0	0	4.8	0	5.0	4.9	4.8	4.5	4.5	4.9	4.9	4.9	0
Ref No.	IC7501																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
REC	0	0	0	0	4.9	4.9	4.9	-25.1	-21.4	-28.8	-17.7	-21.4	-17.1	-25.0	-25.1	-20.9	-25.0	-25.0	-25.0	-17.1
PLAY	0	0	-0.2	0	0	4.9	4.9	-25.0	-25.0	-28.7	-17.7	-20.9	-17.1	-25.0	-20.9	-25.0	-24.9	-28.6	-24.9	-17.5
STOP	0	0	0	0	0	4.9	4.9	-25.1	-25.0	-28.7	-21.4	-28.7	-17.1	-25.0	-21.3	-20.8	-25.0	-25.0	-25.0	-25.0
Ref No.	IC7501																			
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
REC	-17.1	-9.2	-17.1	-17.6	-16.1	-17.6	-12.4	-17.1	-17.1	-9.2	-12.4	-25.0	-25.0	-25.0	-25.0	-25.0	-25.0	-13.4	-16.6	-21.3
PLAY	-21.3	-20.7	-17.0	-17.5	-21.3	-21.2	-12.4	-17.5	-17.1	-17.0	-8.2	-24.9	-28.6	-28.6	-21.2	-24.9	-28.6	-21.3	-8.9	-24.9
STOP	-17.1	-17.5	-16.5	-24.9	-12.9	-24.9	-12.9	-24.9	-17.1	-17.5	-12.8	-24.9	-25.0	-25.0	-25.0	-25.0	-25.0	-24.9	-17.1	-24.9
Ref No.	IC7501																			
MODE	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
REC	-25.0	-25.0	-25.0	-25.0	-25.0	-25.0	-25.3	-25.3	-29.2	5.0	4.9	4.9	0	0	4.9	1.7	0	4.9	4.9	4.9
PLAY	-25.0	-25.0	-25.0	-25.0	-25.0	-25.0	-25.2	-25.2	-29.2	5.0	4.8	4.9	0	0	4.9	1.7	0	4.9	4.9	4.9
STOP	-25.0	-25.0	-25.0	-25.0	-25.0	-25.0	-25.2	-25.2	-29.1	5.0	0	4.9	0	0	4.9	1.7	0	4.9	4.9	4.9
Ref No.	IC7503						IC7504									IC7505				
MODE	1	2	3	4	5		1	2	3	4	5	6	7	8		1	2	3	4	5
REC	2.1	3.3	0	0	0		0.1	0.3	0.5	0	0.5	4.8	4.5	4.9		4.9	4.9	0	0	0
PLAY	2.1	3.3	0	0	0		0	0	0.5	0	0.5	4.8	4.5	4.9		4.9	4.9	0	0	0
STOP	2.1	3.3	0	0	0		0	0.1	0.5	0	0.5	4.8	4.5	4.9		4.9	4.9	0	0	0
Ref No.	IC7507																			
MODE	1	2	3	4	5	6	7	8												
REC	5.6	1.7	1.7	0	1.7	1.7	1.7	13.8												
PLAY	5.6	1.7	1.7	0	1.7	1.7	1.7	13.9												
STOP	5.6	1.8	1.7	0	1.7	1.7	1.8	13.9												
Ref No.	Q3001				Q3002				Q3003				Q3004				Q3005			
MODE	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B	
REC	2.1	0	1.4		1.8	0	1.1		1.9	0	1.1		2.2	0	1.6		3.4	4.8	3.4	
PLAY	2.1	0	1.4		1.8	0	1.1		1.8	0	1.1		2.2	0	1.6		3.4	4.8	3.4	
STOP	2.1	0	1.4		1.8	0	1.1		1.9	0	1.1		2.2	0	1.6		3.4	4.8	3.4	
Ref No.	Q3006				Q3007				Q3008				Q3009				Q3010			
MODE	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B	
REC	4.9	0.5	4.8		1.7	0	1.0		1.1	4.9	1.7		1.7	0	1.0		1.1	4.9	1.7	
PLAY	4.9	0.5	4.8		1.7	0	1.0		1.1	4.9	1.7		1.7	0	1.0		1.1	4.9	1.7	
STOP	4.9	0.5	4.8		1.7	0	1.0		1.1	4.9	1.7		1.7	0	1.0		1.1	4.9	1.7	
Ref No.	Q3011				Q3012				Q3015				Q4004				Q4006			
MODE	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B	
REC	1.1	1.1	0		0	4.7	0.2		2.2	0	1.6		4.9	0	4.9		0	0	-0.2	
PLAY	1.1	1.1	0		0	4.7	0.2		2.2	0	1.6		4.9	-0.1	4.9		0	0	-0.2	
STOP	1.1	1.1	0		0	4.7	0.2		2.2	0	1.6		4.9	-0.3	4.9		0	0	-0.3	
Ref No.	Q4007				Q7401				Q7501				Q7502				Q7509			
MODE	E	C	B		E	C	B		E	C	B		E	C	B		1	2	3	
REC	0	0	-0.2		2.7	0	2.0		0	8.0	-1.2		0	-1.2	-1.8		4.9	13.8	5.5	
PLAY	0	0	-0.2		2.7	0	2.1		0	8.0	-1.2		0	-1.2	-1.8		4.9	13.8	5.5	
STOP	0	0	-0.1		2.7	0	2.1		0	7.9	-1.2		0	-1.2	-1.8		4.9	13.9	5.5	

Ref No.	Q7510			Q7511		
MODE	E	C	B	E	C	B
REC	-25.3	4.9	-25.2	-25.3	4.9	-25.2
PLAY	-25.4	4.9	-25.3	-25.3	4.9	-25.3
STOP	-25.2	4.9	-25.2	-25.2	4.9	-25.2

Ref No.	QR3001			QR3002			QR3004			QR3005			QR3006		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
REC	0	0	4.8	0	0	4.8	0	0	4.8	0	0	4.8	0	0	4.8
PLAY	0	0	4.8	0	0	4.8	0	0	4.8	0	0	4.8	0	0	4.8
STOP	0	0	4.8	0	0	4.8	0	0	4.8	0	0	4.8	0	0	4.8

Ref No.	QR3007			QR3008			QR3009			QR3010			QR3011		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
REC	0	0	4.8	0	0	4.8	0	0.2	0	0	0	4.8	4.9	0.1	4.7
PLAY	0	0	4.8	0	0	4.8	0	0.1	0	0	0	4.8	4.9	0.1	4.7
STOP	0	0	4.8	0	0	4.8	0	0.1	0	0	0	4.8	4.9	0.1	4.7

Ref No.	QR4002			QR4003			QR4004			QR4005			QR4006		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
REC	0	0	4.9	0	0	2.3	0	4.9	0	0	4.9	0	0	0	4.8
PLAY	0	0	4.9	0	0	2.3	0	4.9	0	0	4.9	0	0	0	4.8
STOP	0	0	4.9	0	0	2.3	0	4.9	0	0	4.9	0	0	0	4.8

Ref No.	QR4007			QR4010			QR4011			QR4012			QR7401		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
REC	0	13.1	0	0	11.9	0	0	11.9	0	0	5.7	0	0	3.3	0
PLAY	0	13.2	0	0	11.9	0	0	11.9	0	0	5.7	0	0	3.3	0
STOP	0	13.3	0	0	11.9	0	0	11.9	0	0	5.7	0	0	3.3	0

Ref No.	QR7501			QR7504		
MODE	E	C	B	E	C	B
REC	0	0	2.1	4.9	-1.5	4.8
PLAY	0	0	2.1	4.9	-1.5	4.8
STOP	0	0	2.2	4.9	-1.5	4.8

Ref No.	P9001																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
REC	1.6	3.2	0	4.9	4.9	0	-	0	-	0	-	0	-	0	1.1	1.1	0	1.0	0	1.2
PLAY	1.6	3.2	0	4.9	4.9	0	-	0	-	0	-	0	-	0	1.1	1.1	0	1.0	0	1.2
STOP	1.6	3.2	0	4.9	4.9	0	-	0	-	0	-	0	-	0	1.1	1.1	0	1.0	0	1.2

Ref No.	P9001																			
MODE	21	22	23	24	25	26	27	28	29	30										
REC	0	1.5	0	1.8	1.8	0.2	0	1.6	0	1.9										
PLAY	0	1.5	0	1.8	1.8	0.1	0	1.6	0	1.9										
STOP	0	1.5	0	1.8	1.8	0.1	0	1.6	0	1.9										

Ref No.	P9002																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
REC	5.0	3.3	5.9	1.5	1.8	1.8	0	4.8	0	0	0	2.5	0	2.5	0	0	1.6	0	2.5	0
PLAY	5.0	3.3	5.9	1.5	1.8	1.8	0	4.8	0	0	0	2.5	0	2.5	0	0	1.6	0	2.5	0
STOP	5.0	3.3	5.9	1.5	1.8	1.8	0	4.8	0	0	0	2.5	0	2.5	0	0	1.6	0	2.5	0

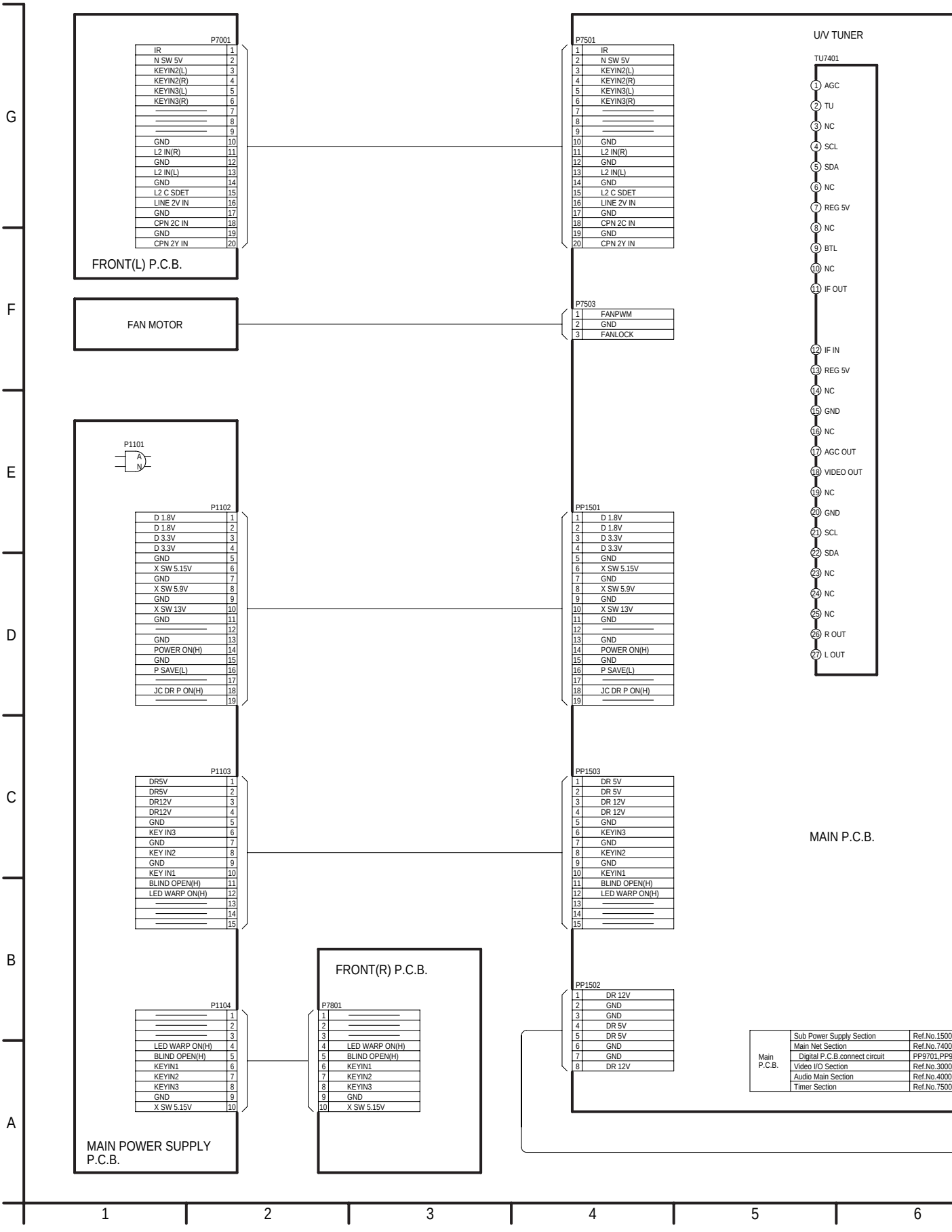
Ref No.	P9002																			
MODE	21	22	23	24	25	26	27	28	29	30										
REC	2.5	5.0	2.3	0	0	1.8	1.5	6.0	3.3	5.0										
PLAY	2.5	5.0	2.3	0	0	1.8	1.5	5.9	3.3	5.0										
STOP	2.5	5.0	2.3	0	0	1.8	1.5	5.9	3.3	5.0										

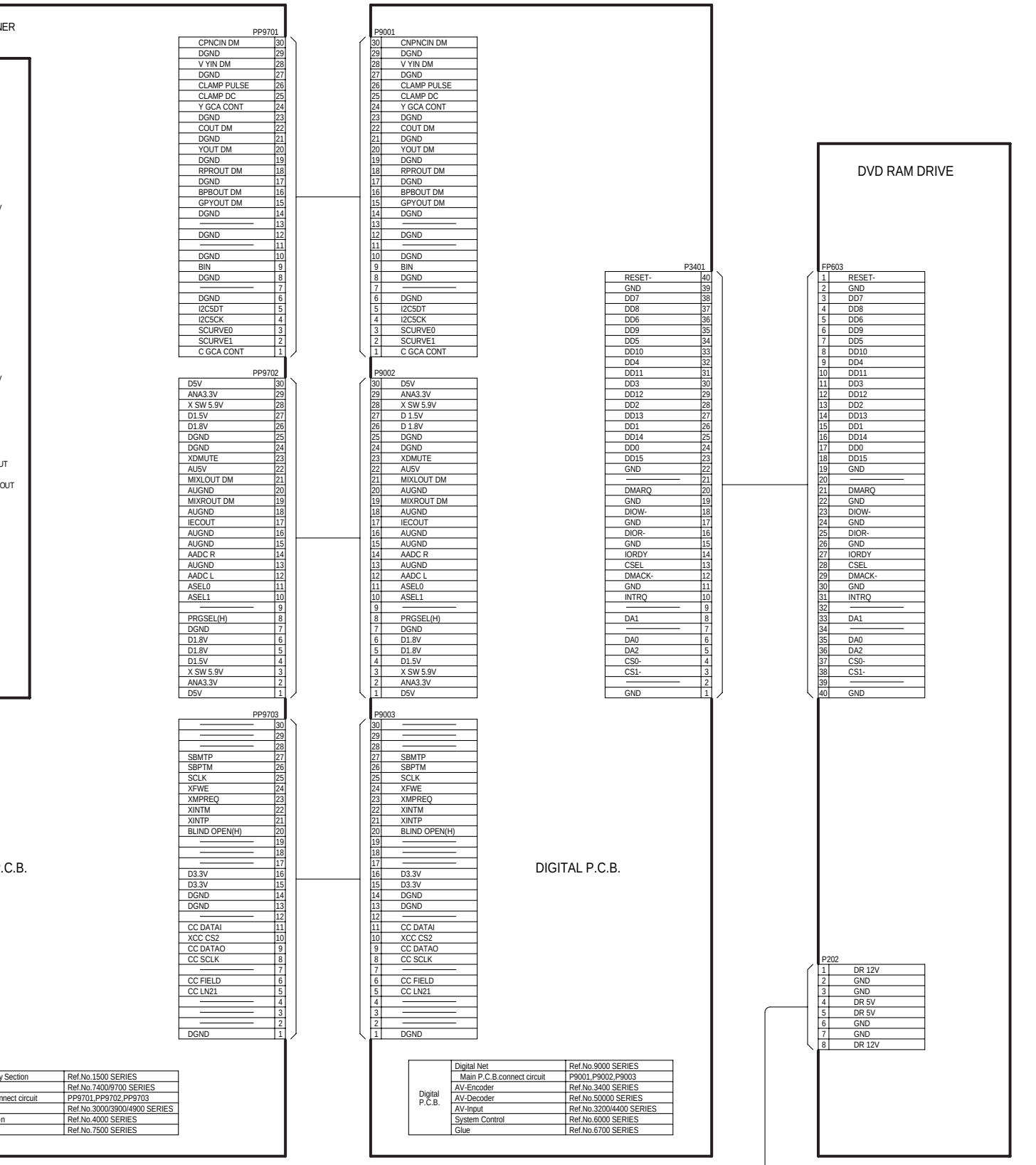
Ref No.	P9003																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
REC	0	4.8	5.0	4.6	3.2	5.0	-	5.0	0.1	5.0	0.1	-	0	0	3.3	3.3	4.9	-	-	-0.1
PLAY	0	4.8	5.0	4.6	3.3	5.0	-	5.0	0.1	5.0	0.1	-	0	0	3.3	3.3	5.0	-	-	-0.1
STOP	0	4.8	5.0	4.6	3.3	5.0	-	5.0	0.1	5.0	0.1	-	0	0	3.3	3.3	4.9	-	-	-0.1

Ref No.	P9003																			
MODE	21	22	23	24	25	26	27	28	29	30										
REC	4.9	5.0	5.0	4.7	4.9	4.8	5.0	0	-	-										
PLAY	4.9	5.0	5.0	4.7	4.9	4.9	5.0	0	-	-										
STOP	4.9	5.0	5.0	4.7	4.9	0.2	5.0	0	-	-										

14 Schematic Diagram

14.1. Interconnection Schematic Diagram





y Section	Ref.No.1500 SERIES
	Ref.No.7400/9700 SERIES
nnect circuit	PP9701,PP9702,PP9703
	Ref.No.3000/3900/4900 SERIES
n	Ref.No.4000 SERIES
	Ref.No.7500 SERIES

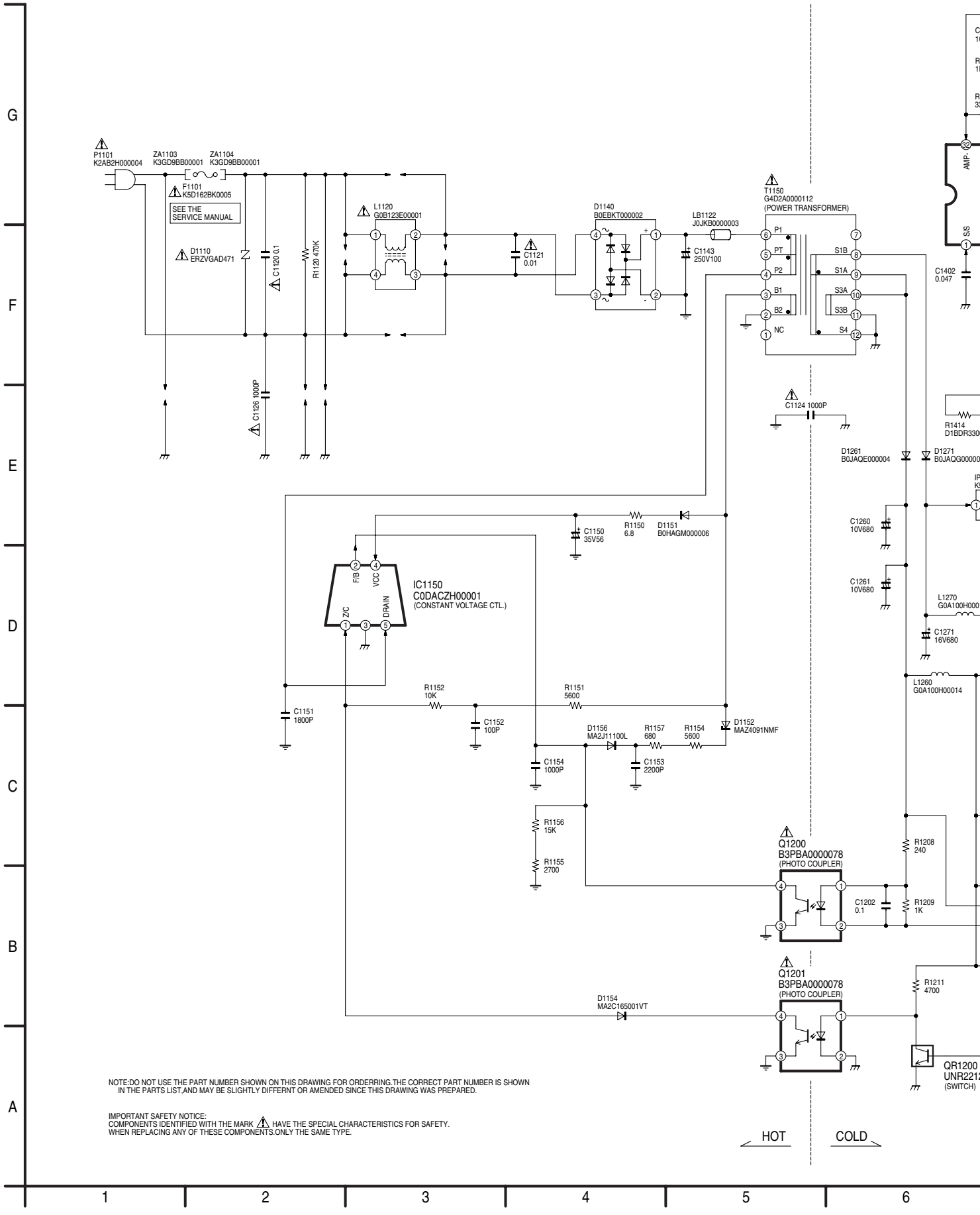
Digital P.C.B.	Digital Net	Ref.No.9000 SERIES
	Main P.C.B.connect circuit	P9001,P9002,P9003
	AV-Encoder	Ref.No.3400 SERIES
	AV-Decoder	Ref.No.50000 SERIES
	AV-Input	Ref.No.3200/4400 SERIES
	System Control	Ref.No.6000 SERIES
	Glue	Ref.No.6700 SERIES

NOTE:DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING.THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERNT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

DMR-E50P/PC/PL
Interconnection
Schematic Diagram

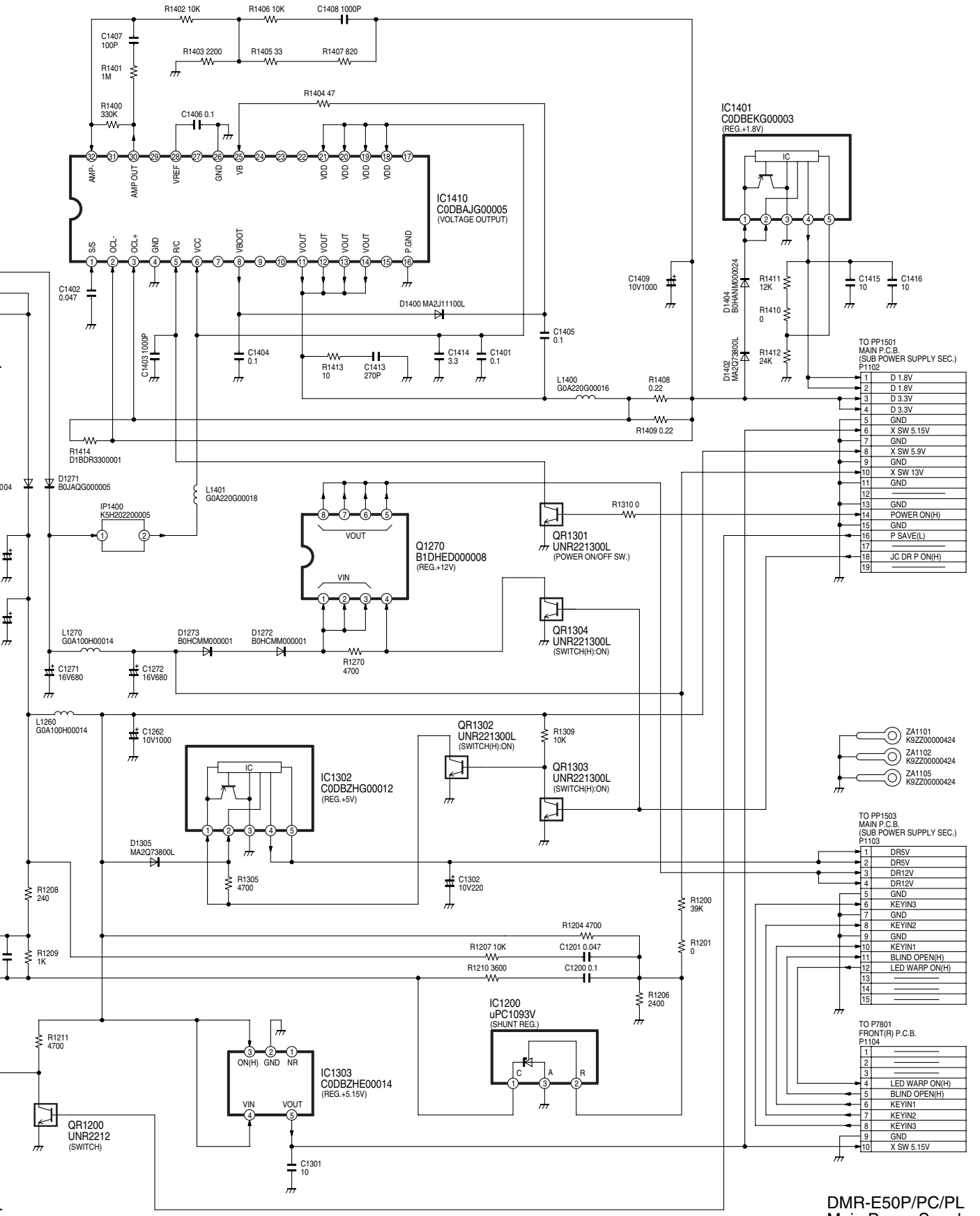
6 7 8 9 10 11

14.2. Main Power Supply Schematic Diagram (Power Supply P.C.B.)



NOTE:DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERRING.THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST,AND MAY BE SLIGHTLY DIFFERNT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

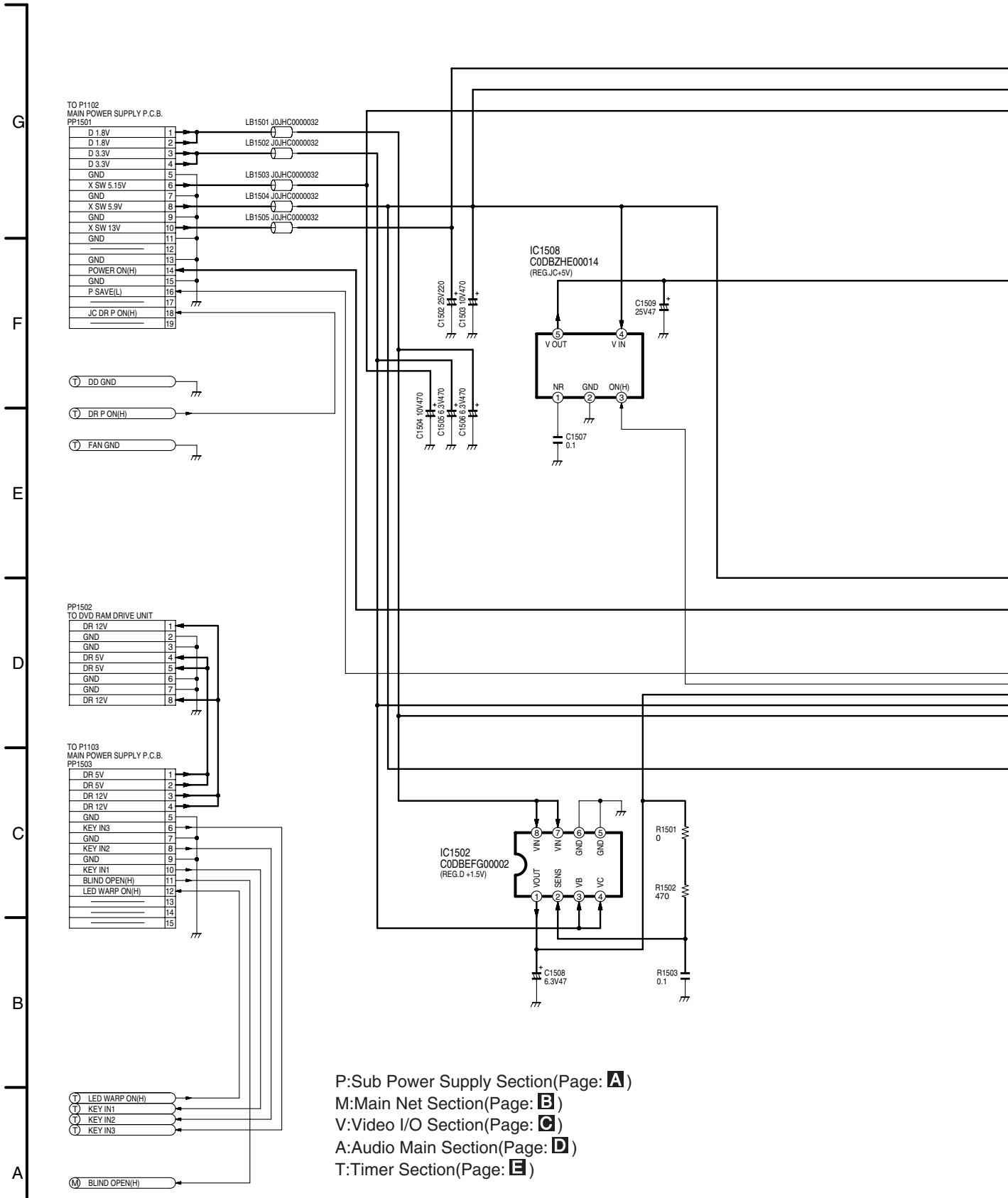
IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS,ONLY THE SAME TYPE.



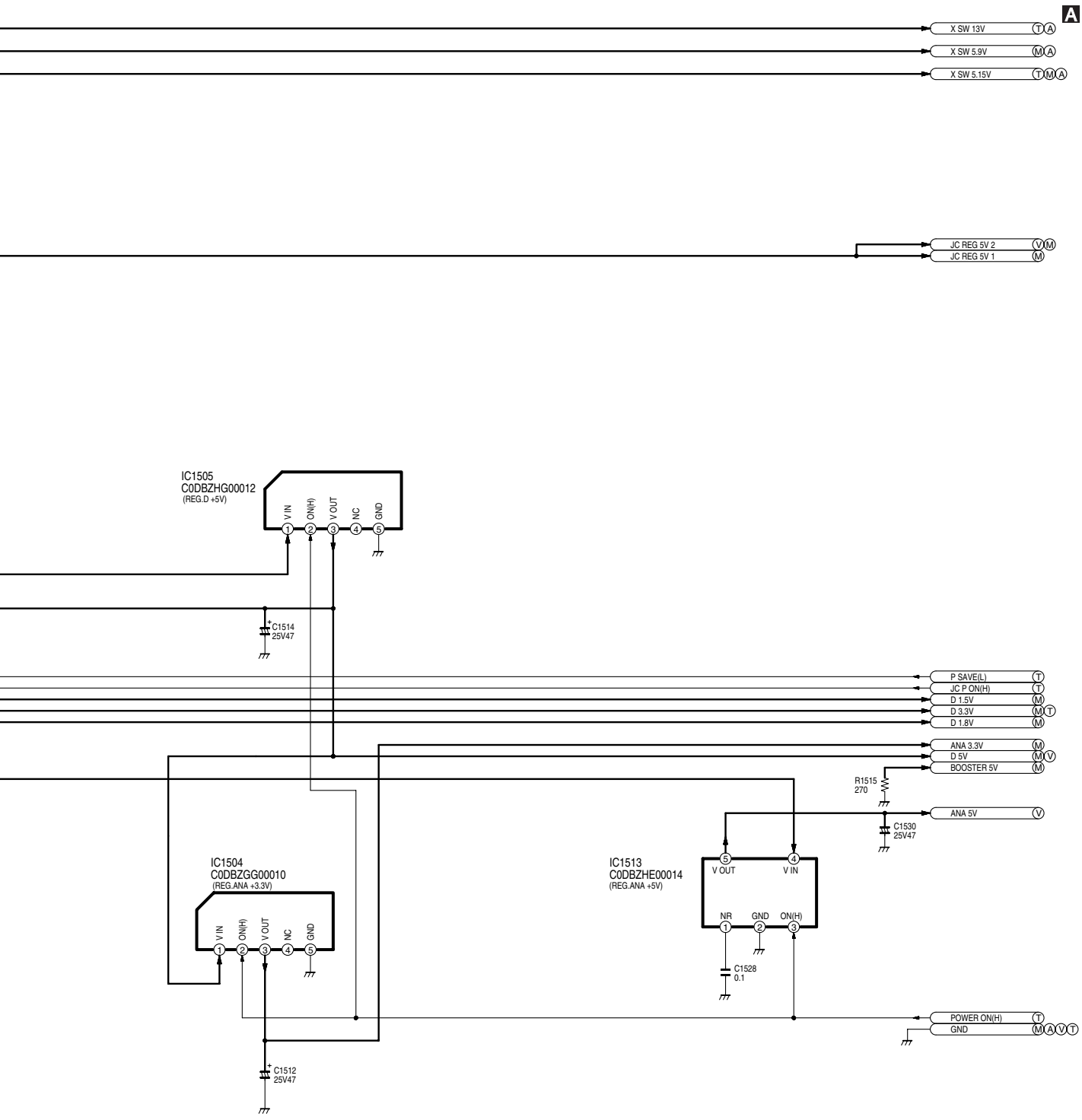
DMR-E50P/PC/PL
Main Power Supply
Schematic Diagram

6 | 7 | 8 | 9 | 10 | 11

14.3. Sub Power Supply Schematic Diagram (P) (Main P.C.B. 1/5)



P:Sub Power Supply Section(Page: A)
M:Main Net Section(Page: B)
V:Video I/O Section(Page: C)
A:Audio Main Section(Page: D)
T:Timer Section(Page: E)

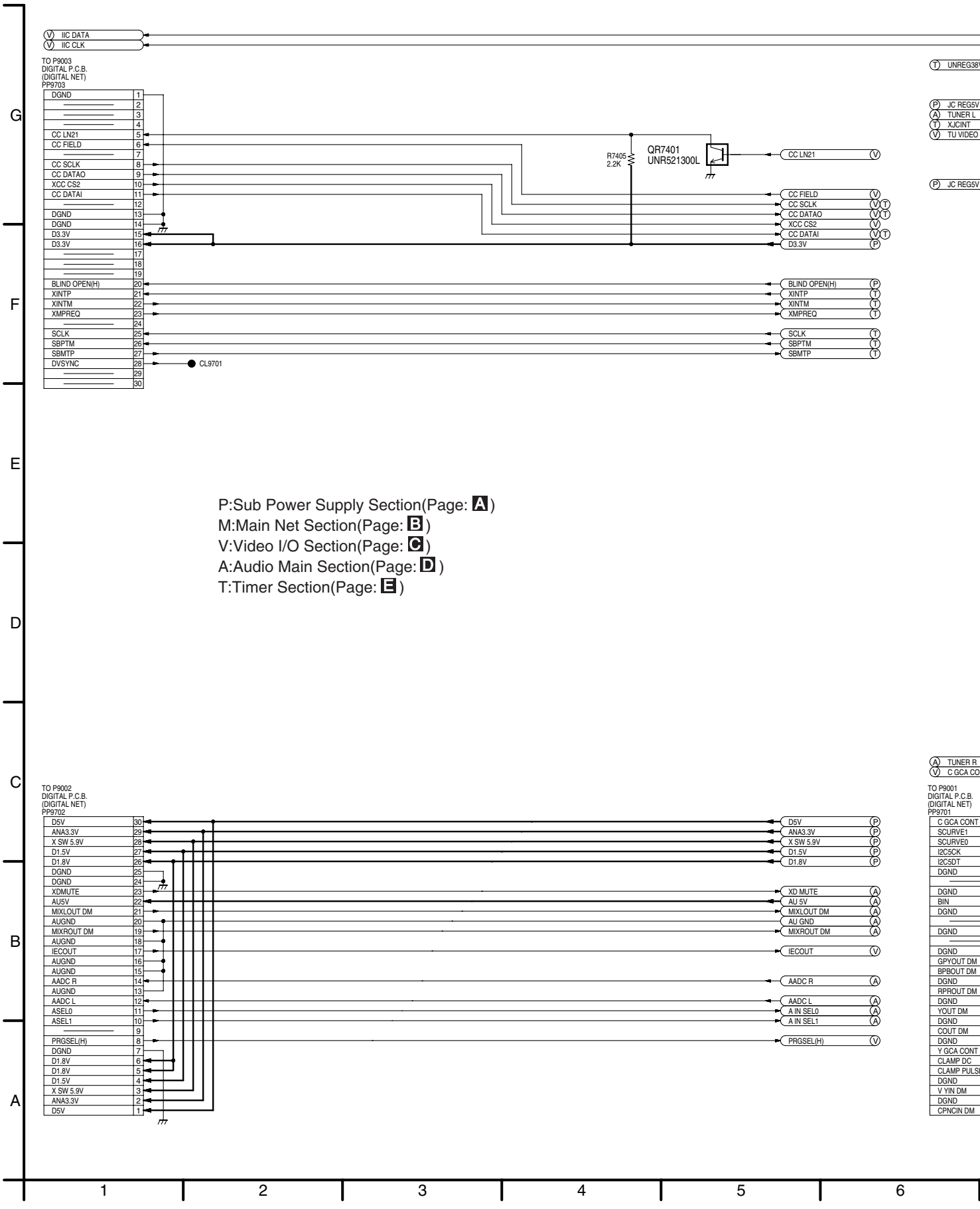


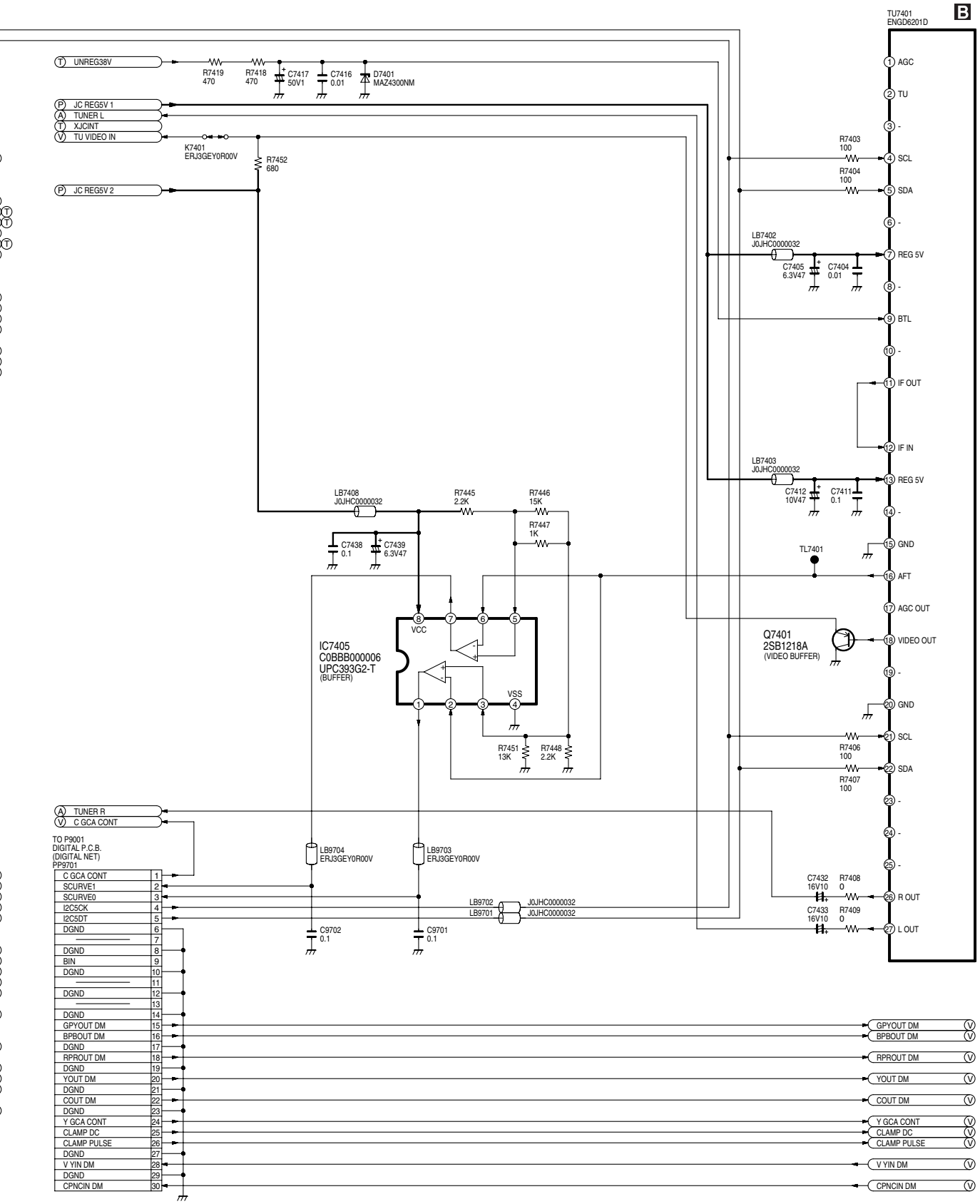
NOTE:DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERNT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

DMR-E50P/PC/PL
Sub Power Supply Section
(Main P.C.B. (1/5))
Schematic Diagram(P)

6 | 7 | 8 | 9 | 10 | 11

14.4. Main Net Schematic Diagram (M) (Main P.C.B. 2/5)



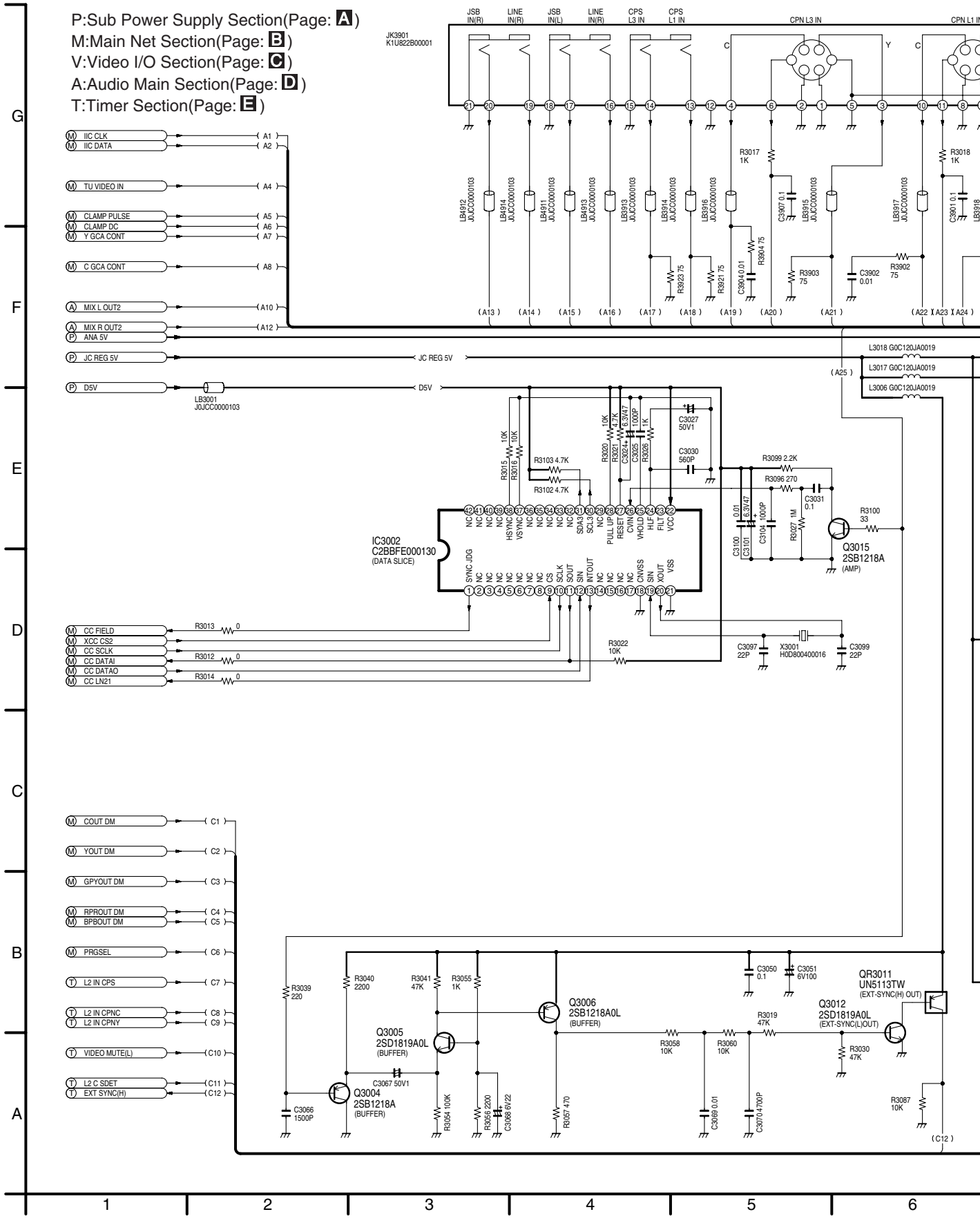


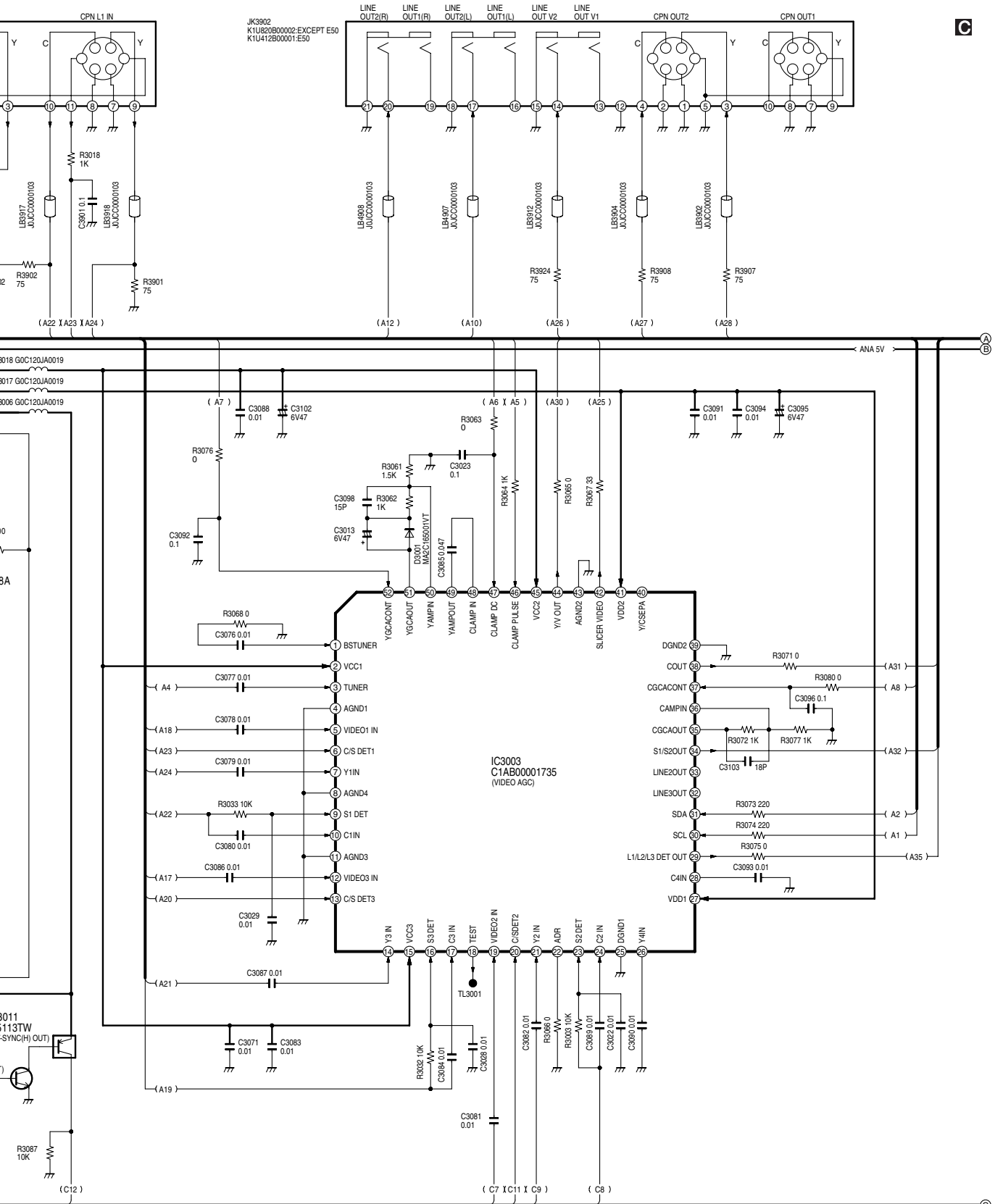
NOTE:DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING.THE CORRECTPART NUMBER IS SHOWN IN THE PARTS LIST,AND MAY BE SLIGHTLY DIFFERNT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

DMR-E50P/PC/PL
Main Net Section(Main P.C.B. (2/5))
Schematic Diagram(M)

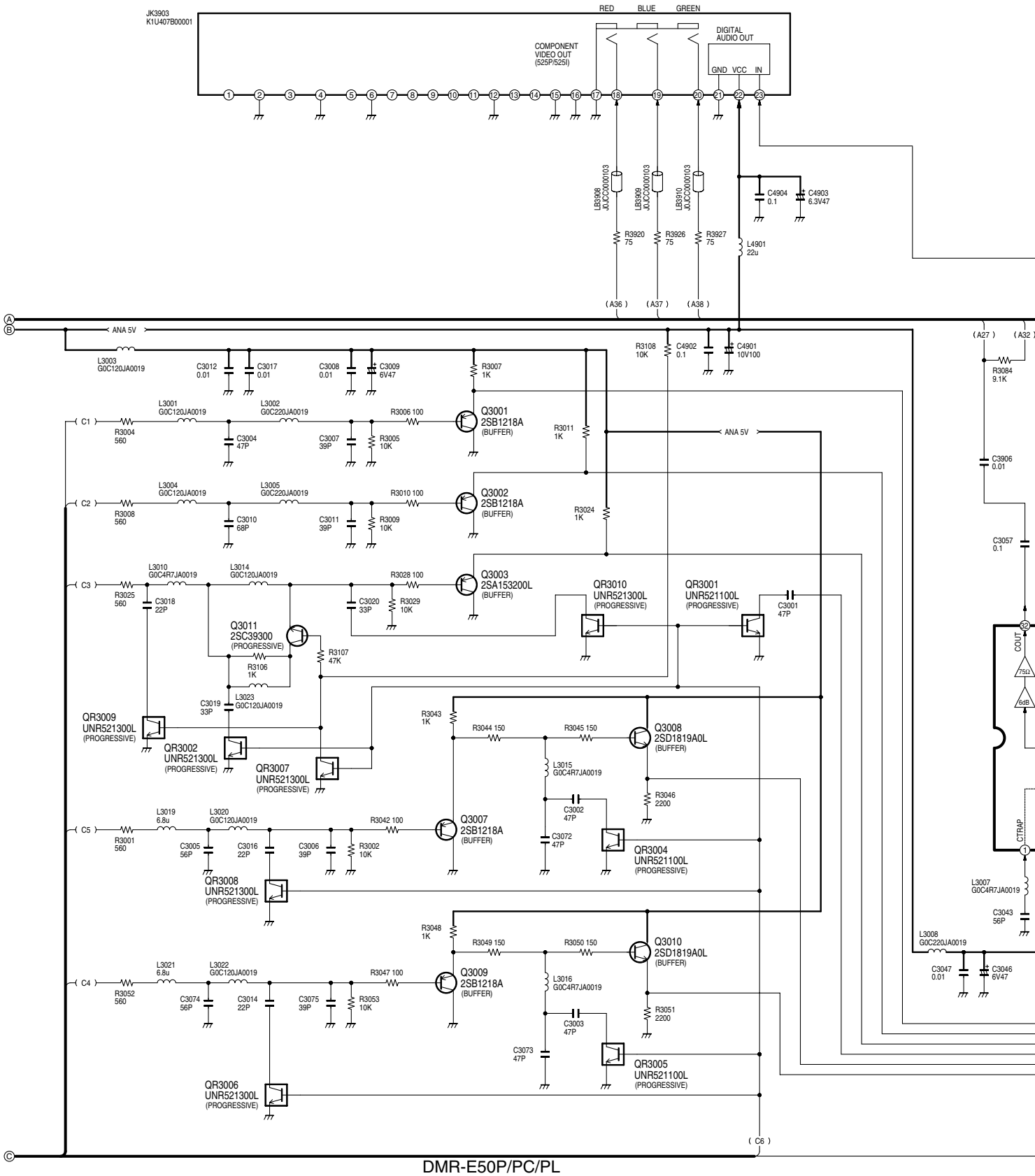
6 | 7 | 8 | 9 | 10 | 11

14.5. Video I/O Schematic Diagram (V) (Main P.C.B. 3/5)





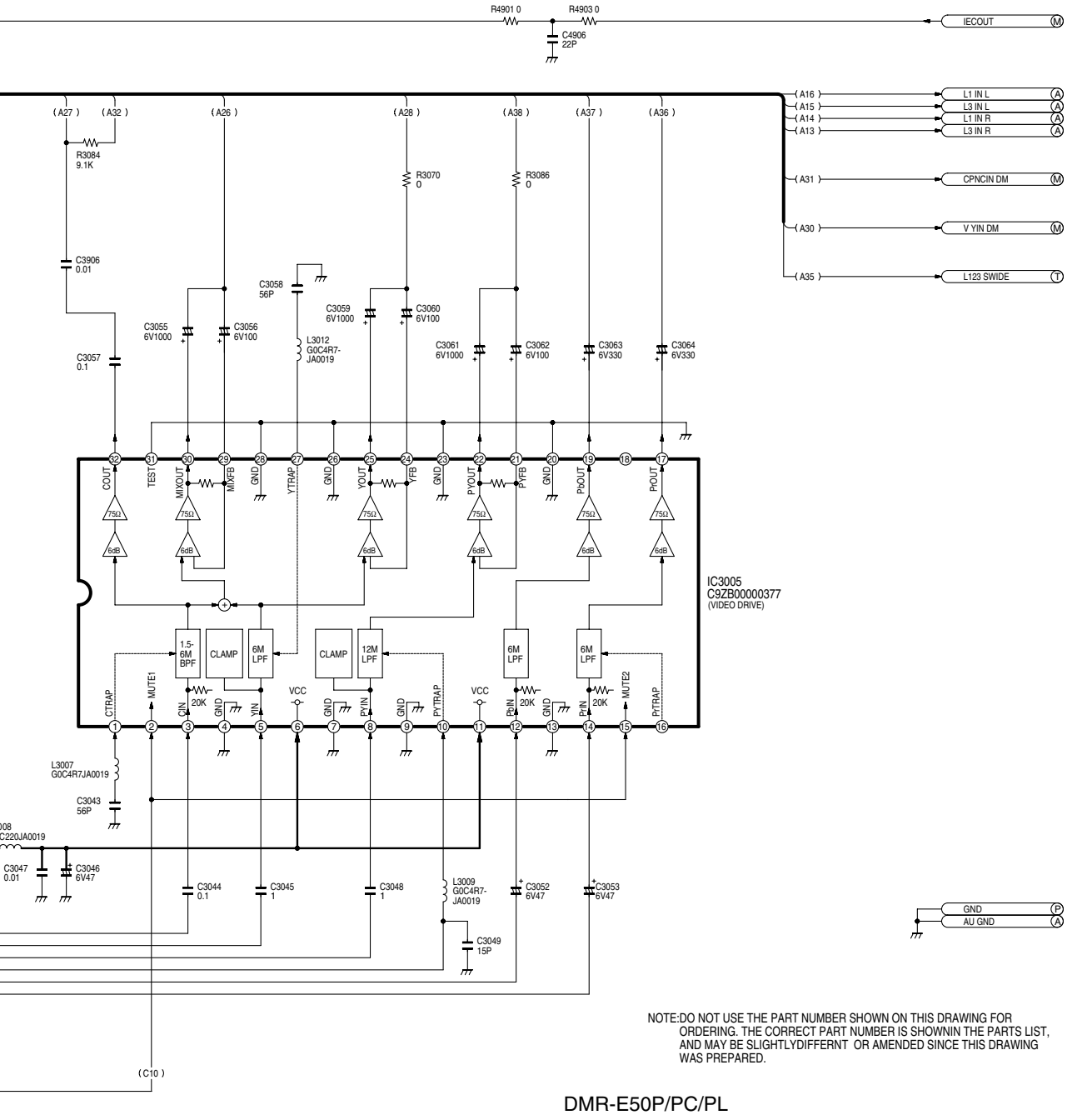
DMR-E50P/PC/PL
Video I/O Section(Main P.C.B. (3/5))Schematic Diagram(V)



DMR-E50P/PC/PL
Video I/O Section(Main P.C.B. (3/5))Schematic Diagram(V)

C

P:Sub Power Supply Section(Page: A)
M:Main Net Section(Page: B)
V:Video I/O Section(Page: C)
A:Audio Main Section(Page: D)
T:Timer Section(Page: E)

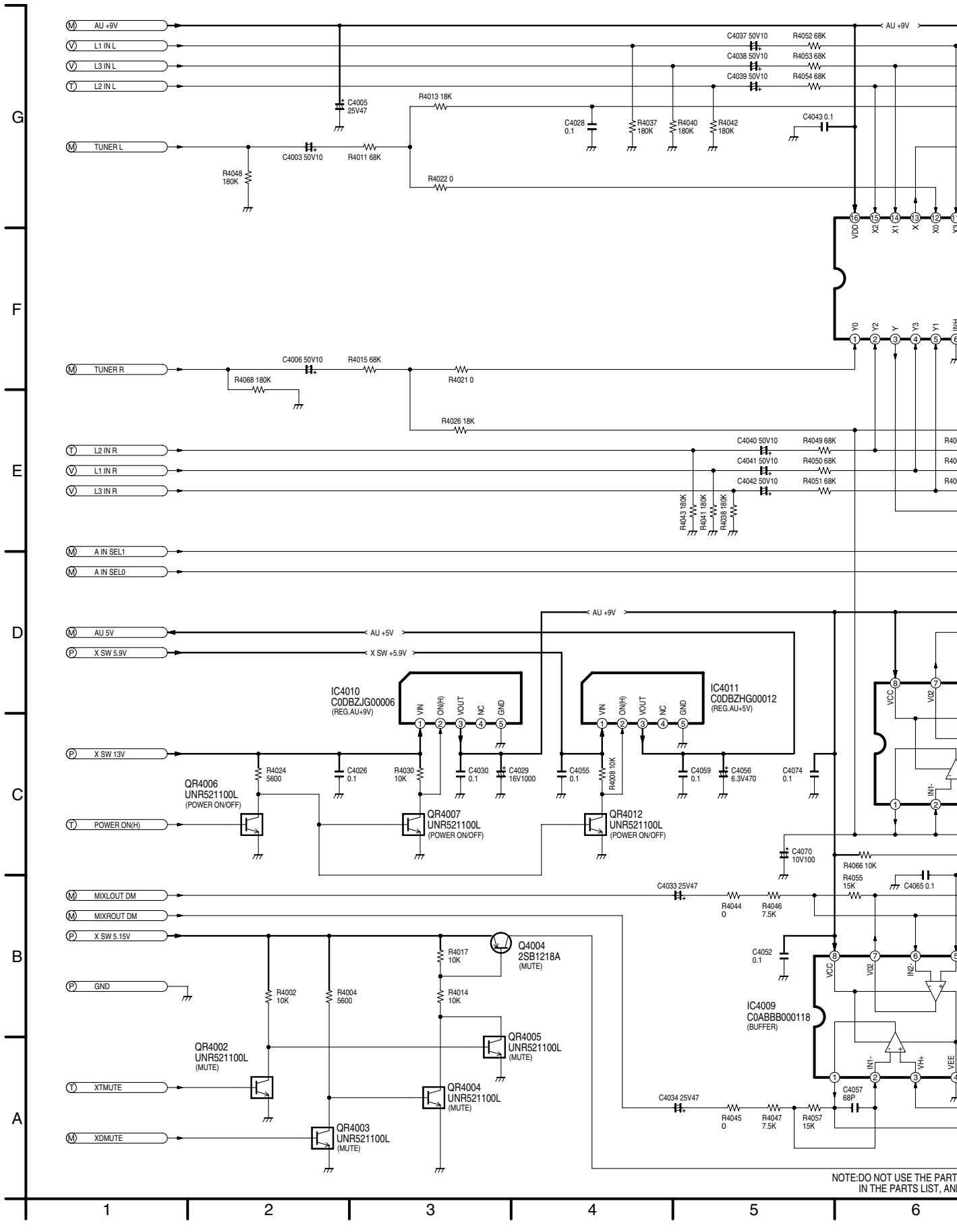


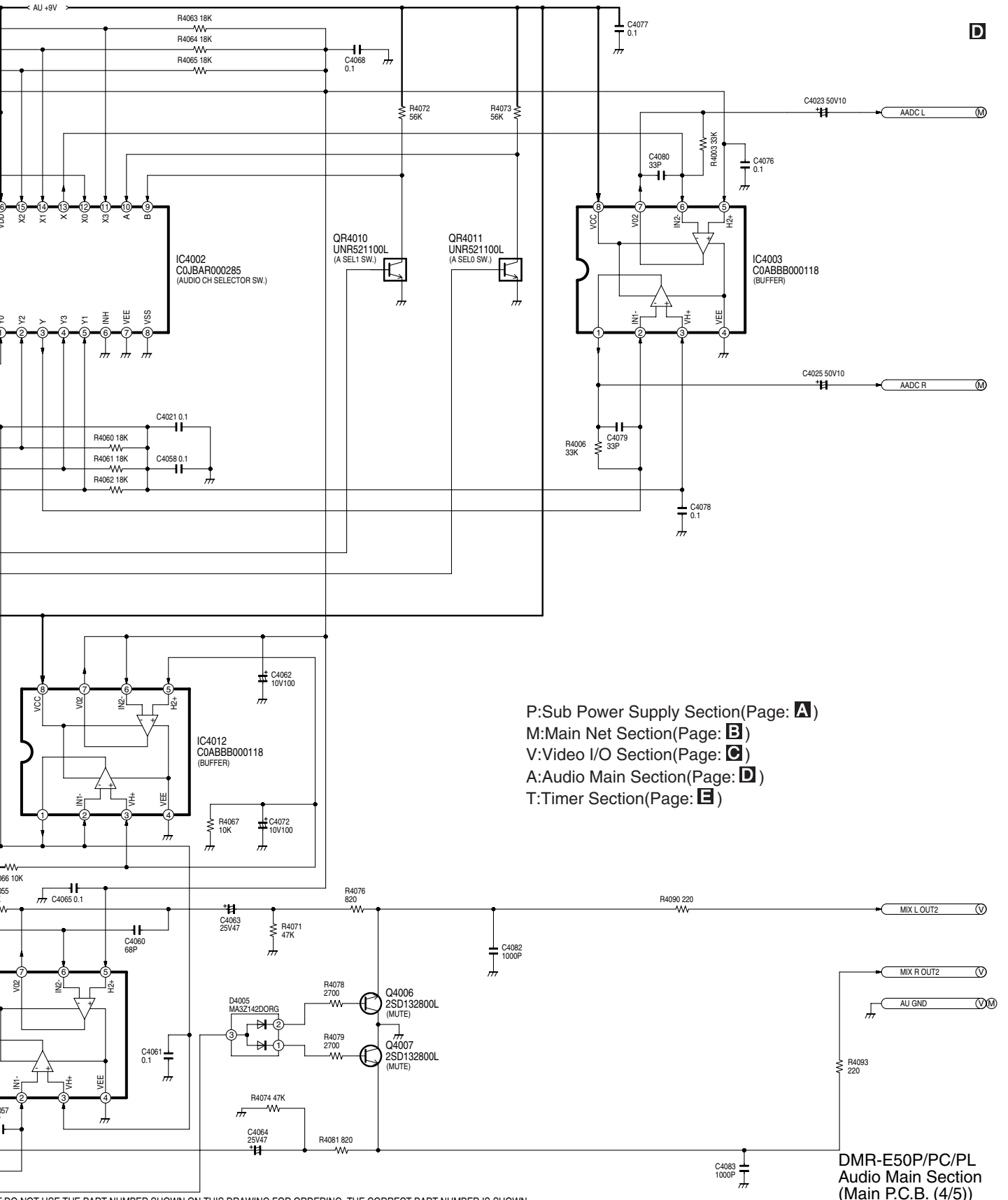
NOTE:DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWNIN THE PARTS LIST, AND MAY BE SLIGHTLYDIFFERNT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

DMR-E50P/PC/PL
Video I/O Section(Main P.C.B. (3/5))Schematic Diagram(V)

18 | 19 | 20 | 21 | 22

14.6. Audio Schematic Diagram (A) (Main P.C.B. 4/5)





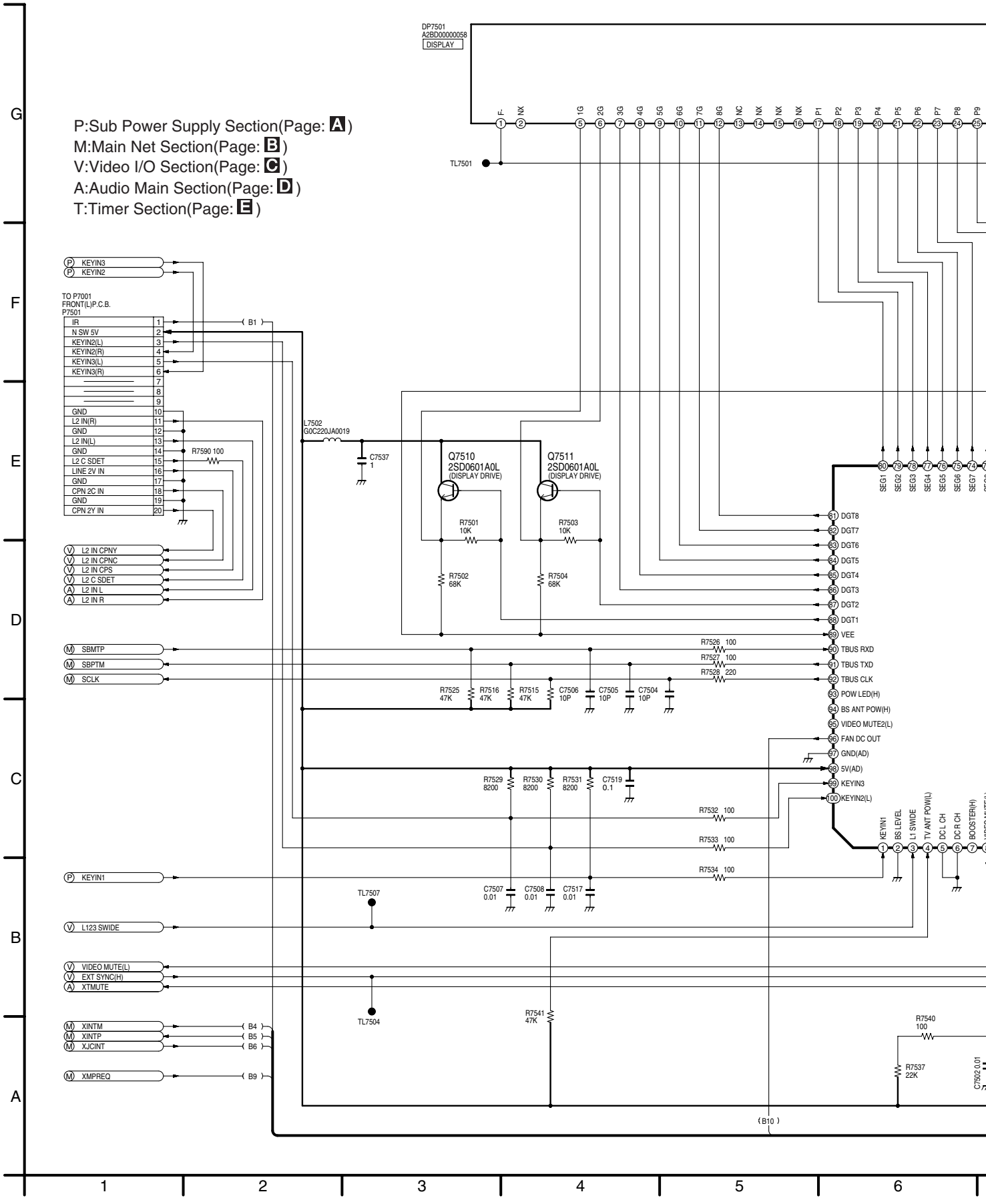
P:Sub Power Supply Section(Page: A)
M:Main Net Section(Page: B)
V:Video I/O Section(Page: C)
A:Audio Main Section(Page: D)
T:Timer Section(Page: E)

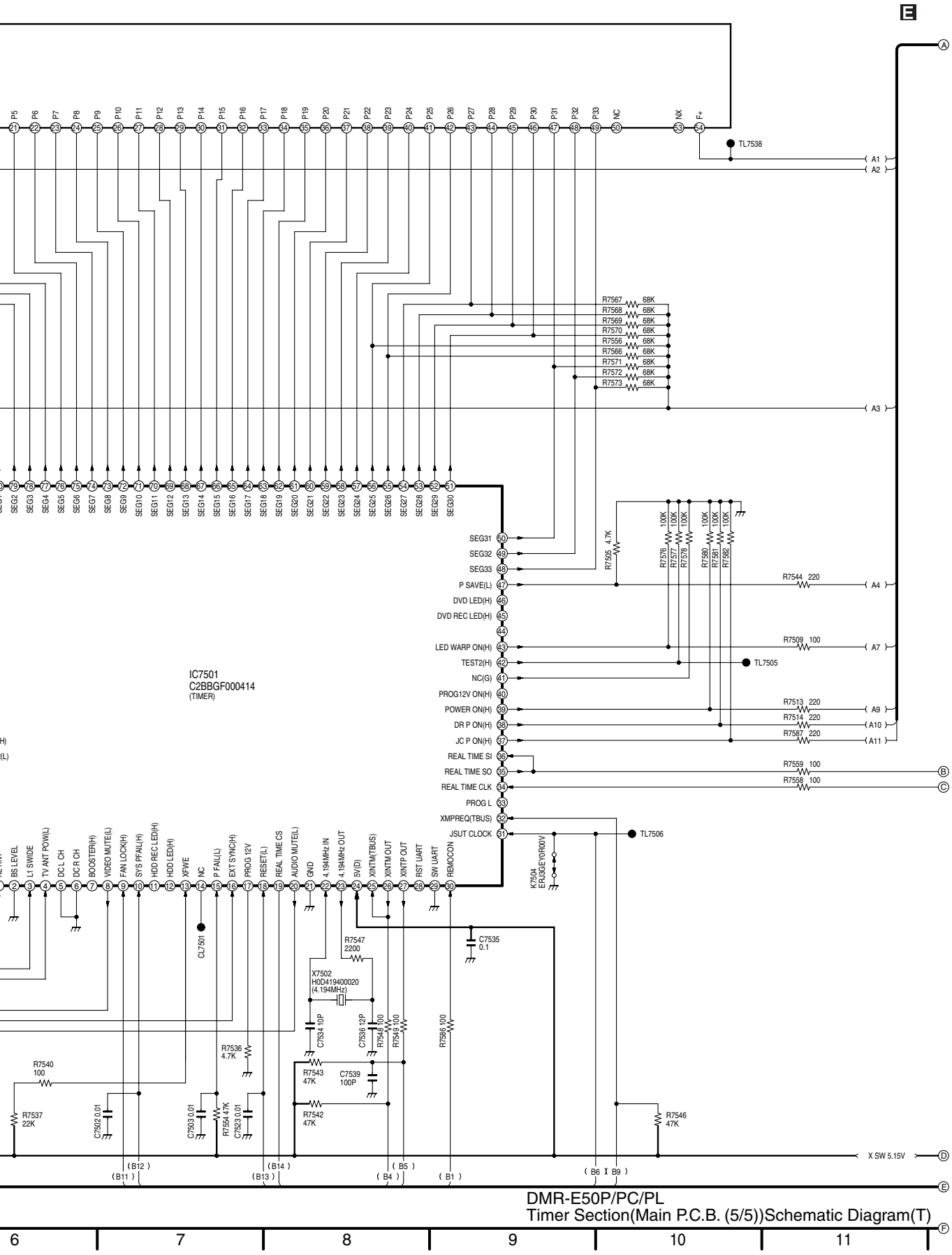
DMR-E50P/PC/PL
Audio Main Section
(Main P.C.B. (4/5))
Schematic Diagram(A)

E:DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERNT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

6 | 7 | 8 | 9 | 10 | 11

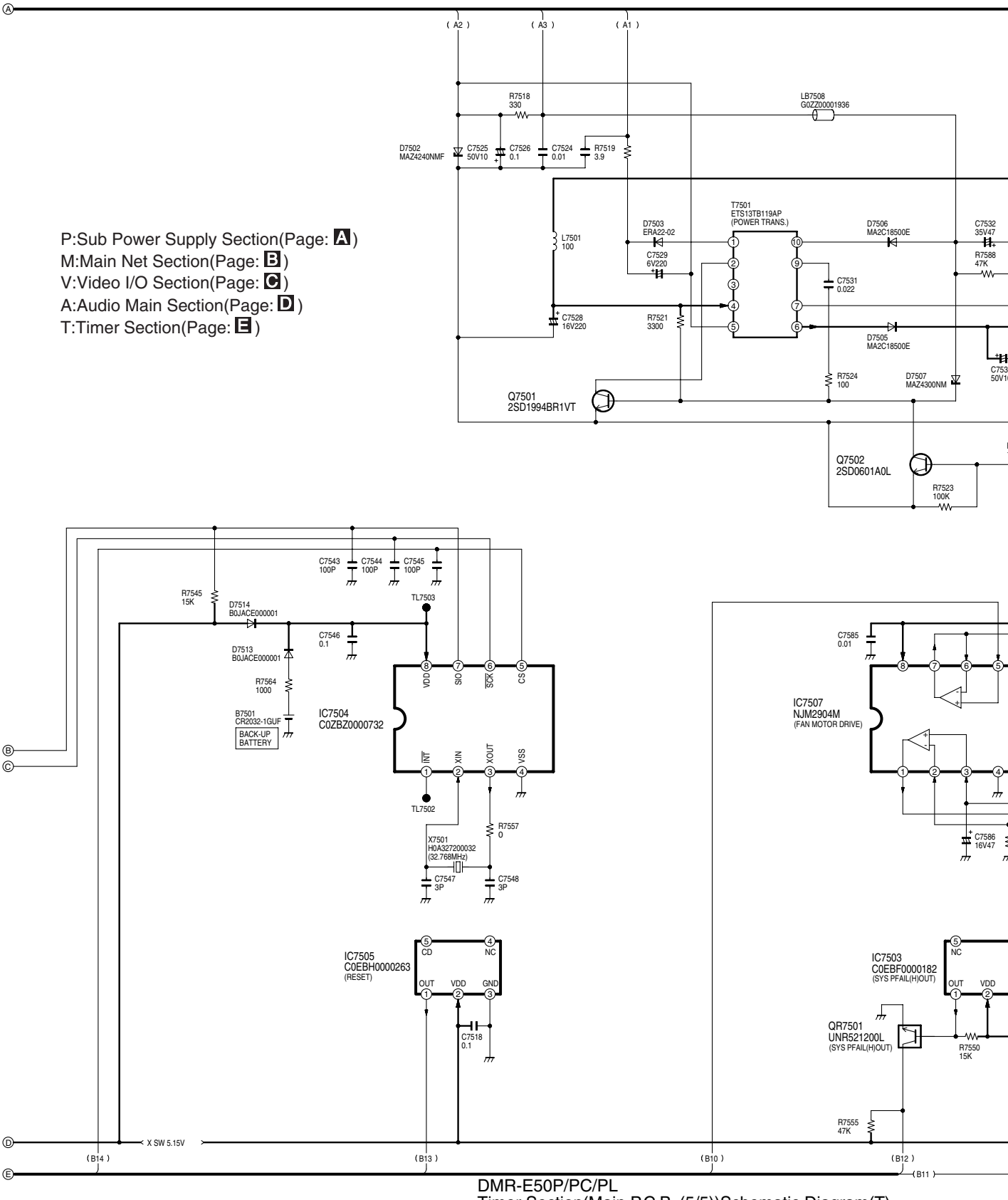
14.7. Timer Schematic Diagram (T) (Main P.C.B. 5/5)





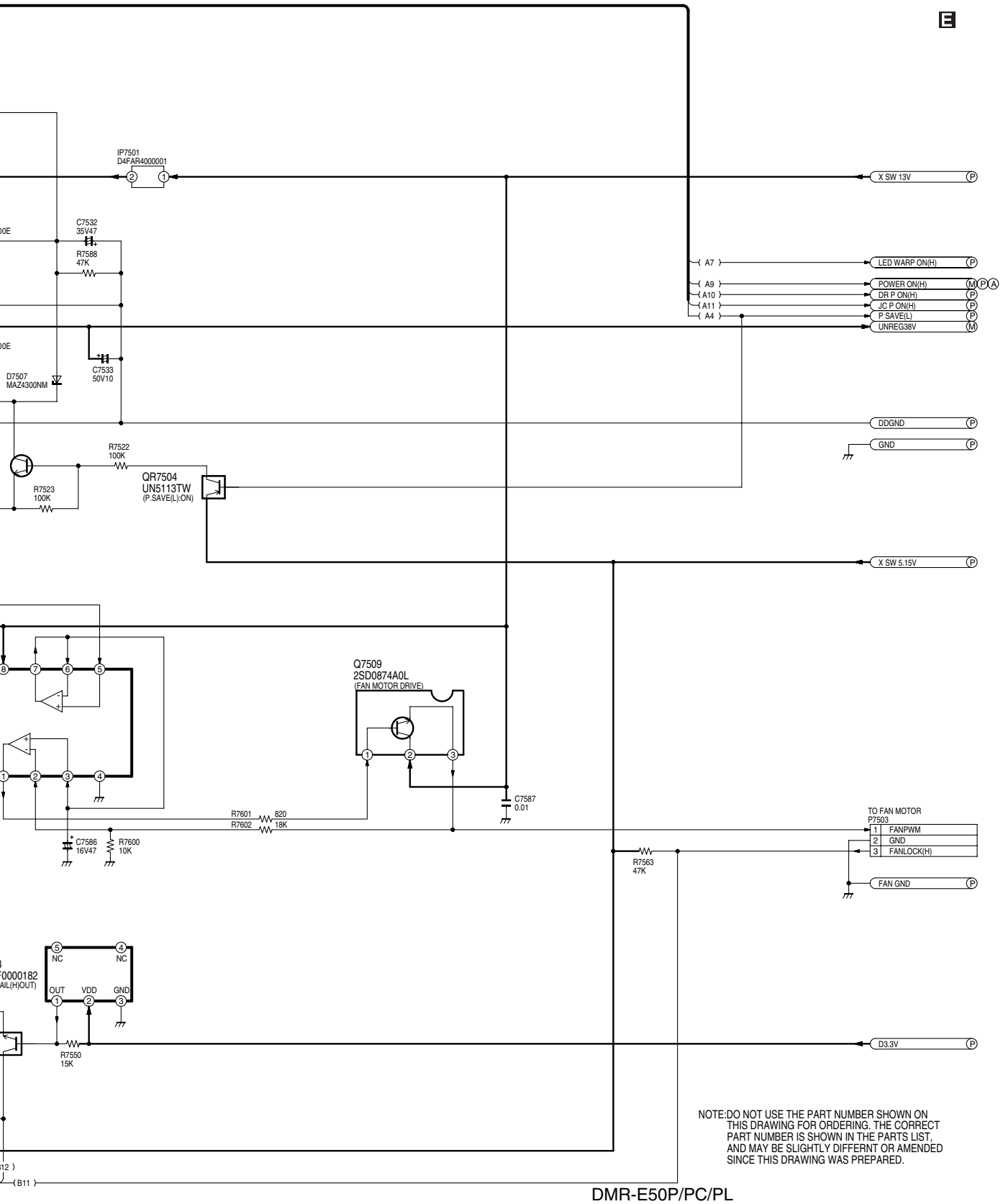
DMR-E50P/PC/PL
Timer Section(Main P.C.B. (5/5))Schematic Diagram(T)

P:Sub Power Supply Section(Page: A)
M:Main Net Section(Page: B)
V:Video I/O Section(Page: C)
A:Audio Main Section(Page: D)
T:Timer Section(Page: E)



DMR-E50P/PC/PL
Timer Section(Main P.C.B. (5/5))Schematic Diagram(T)

12 | 13 | 14 | 15 | 16 | 17

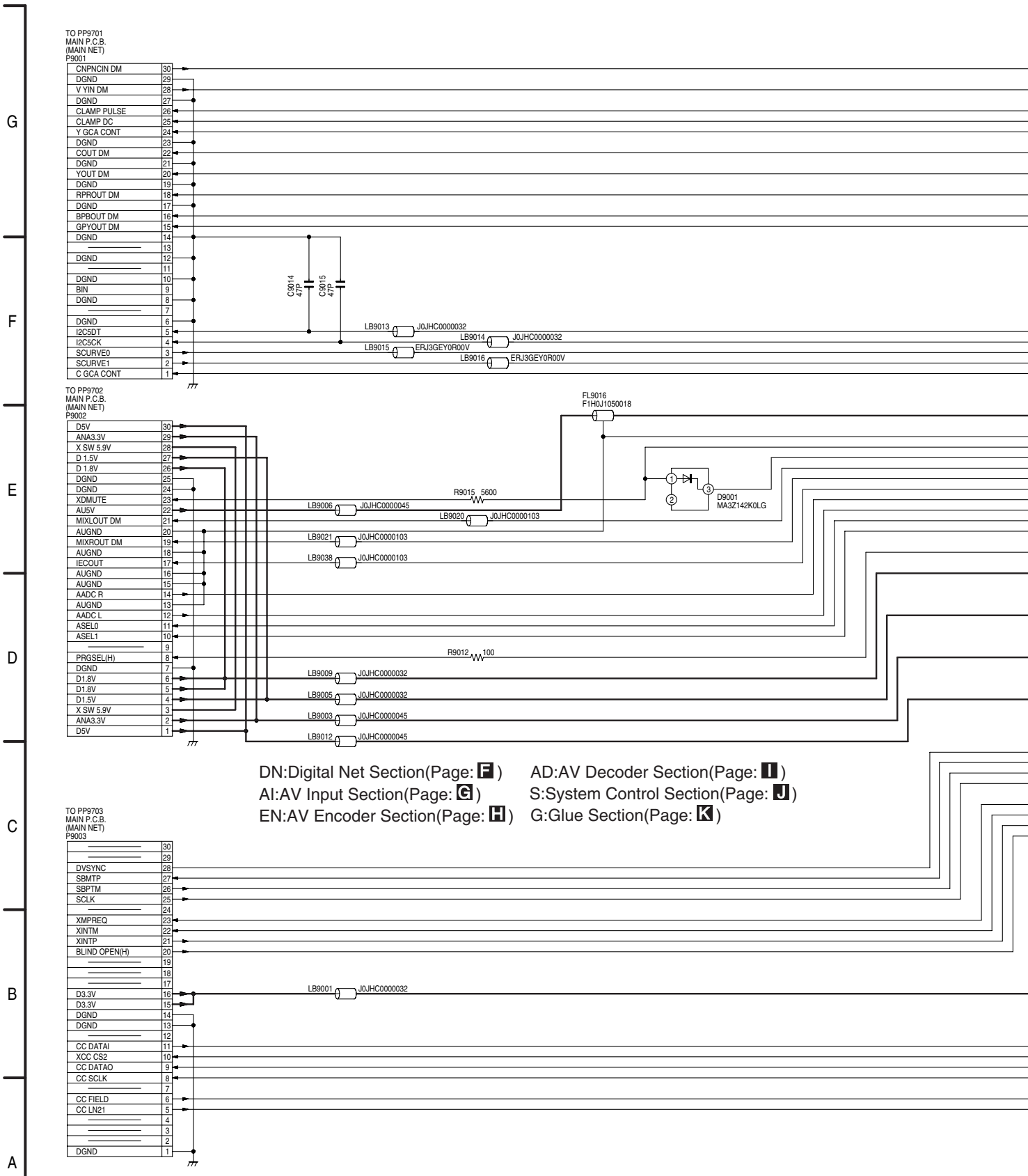


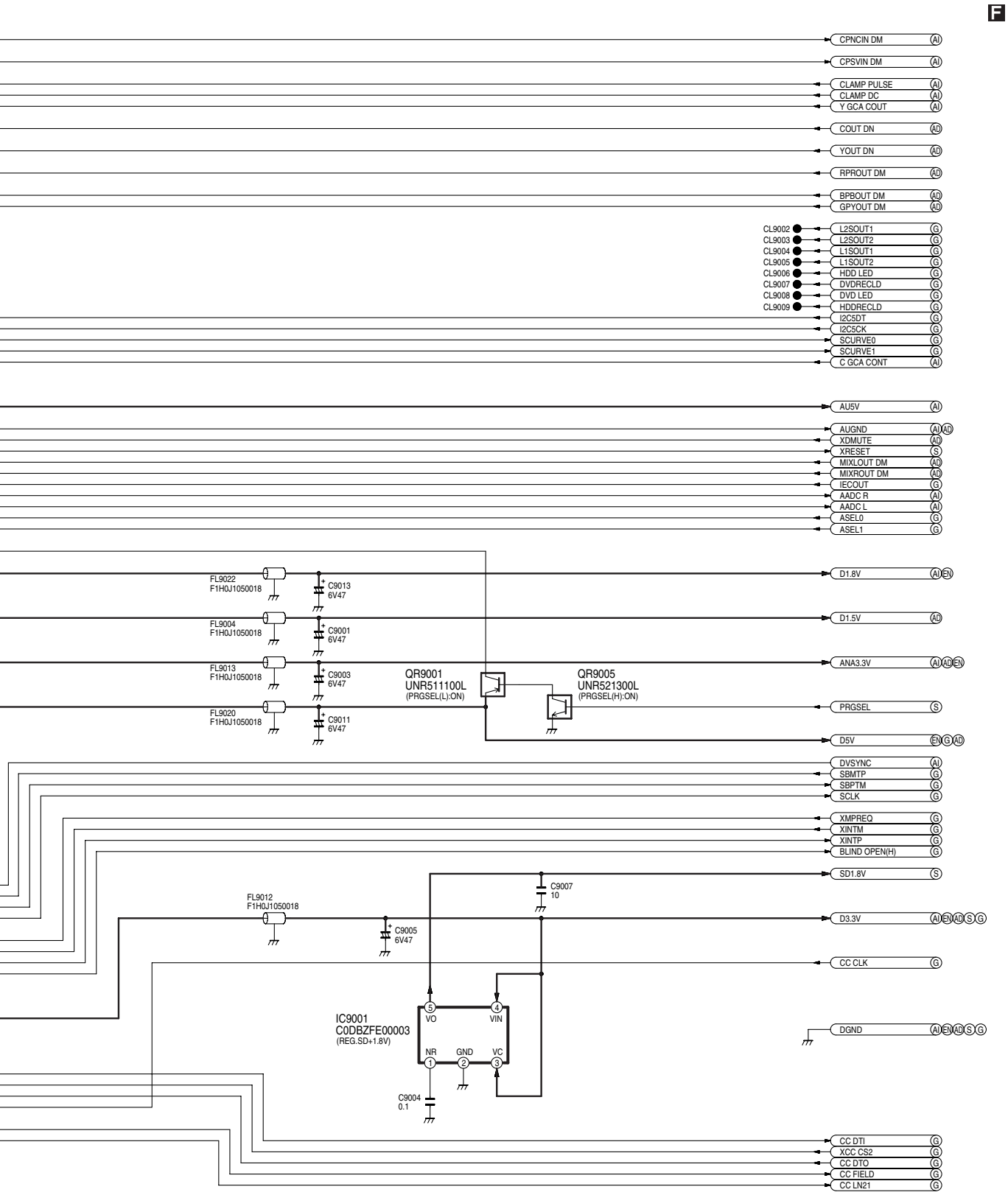
NOTE:DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERNT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

DMR-E50P/PC/PL
Timer Section(Main P.C.B. (5/5))Schematic Diagram(T)

17 | 18 | 19 | 20 | 21 | 22

14.8. Digital Net Schematic Diagram (DN) (Digital P.C.B. 1/6)



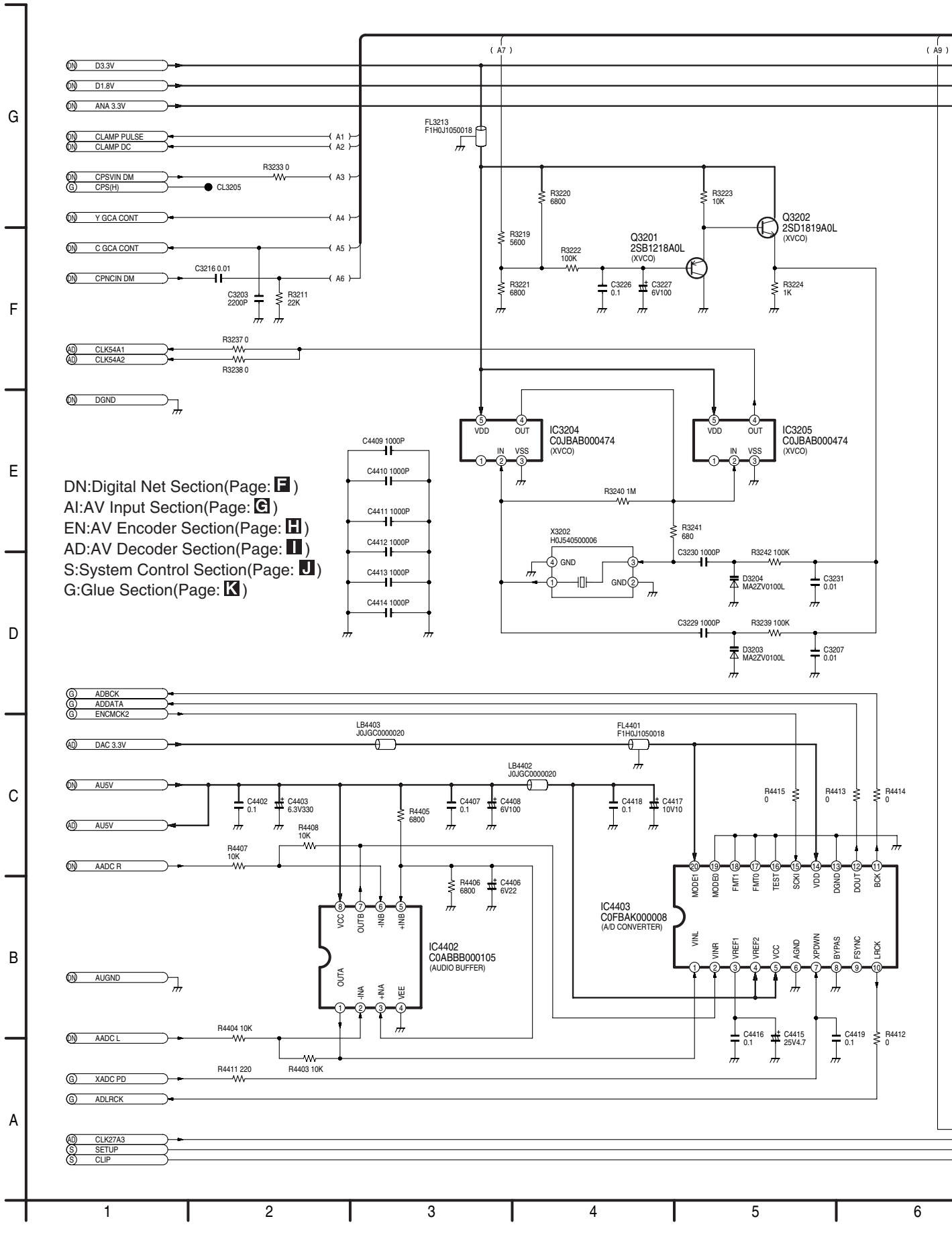


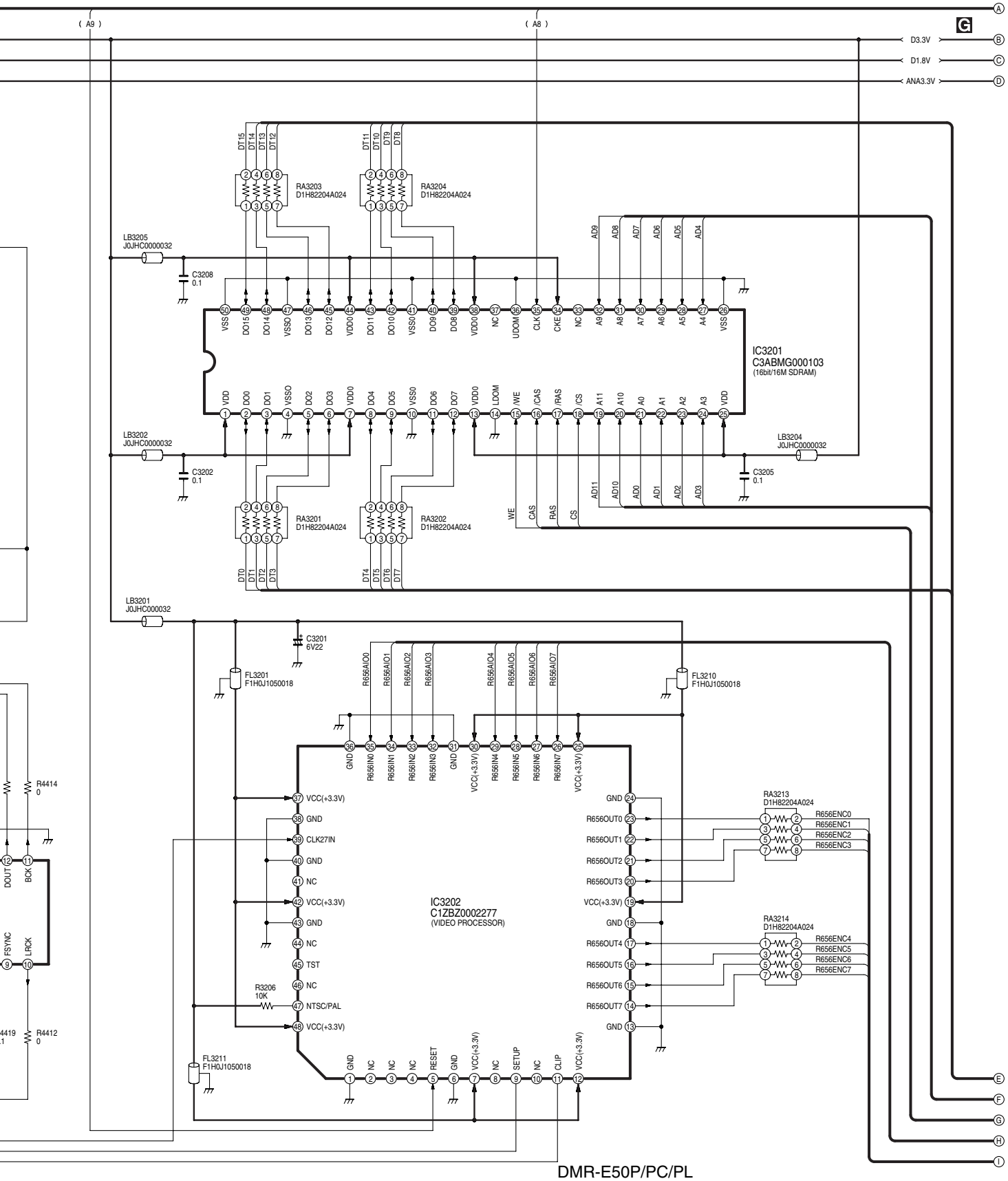
O NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT
RT NUMBER IS SHOWN IN THE PARTS LIST,AND MAY BE SLIGHTLY DIFFERNT OR AMENDED
NCE THIS DRAWING WAS PREPARED.

DMR-E50P/PC/PL
Digital Net Section(Digital P.C.B.(1/6))
Schematic Diagram(DN)

6 | 7 | 8 | 9 | 10 | 11

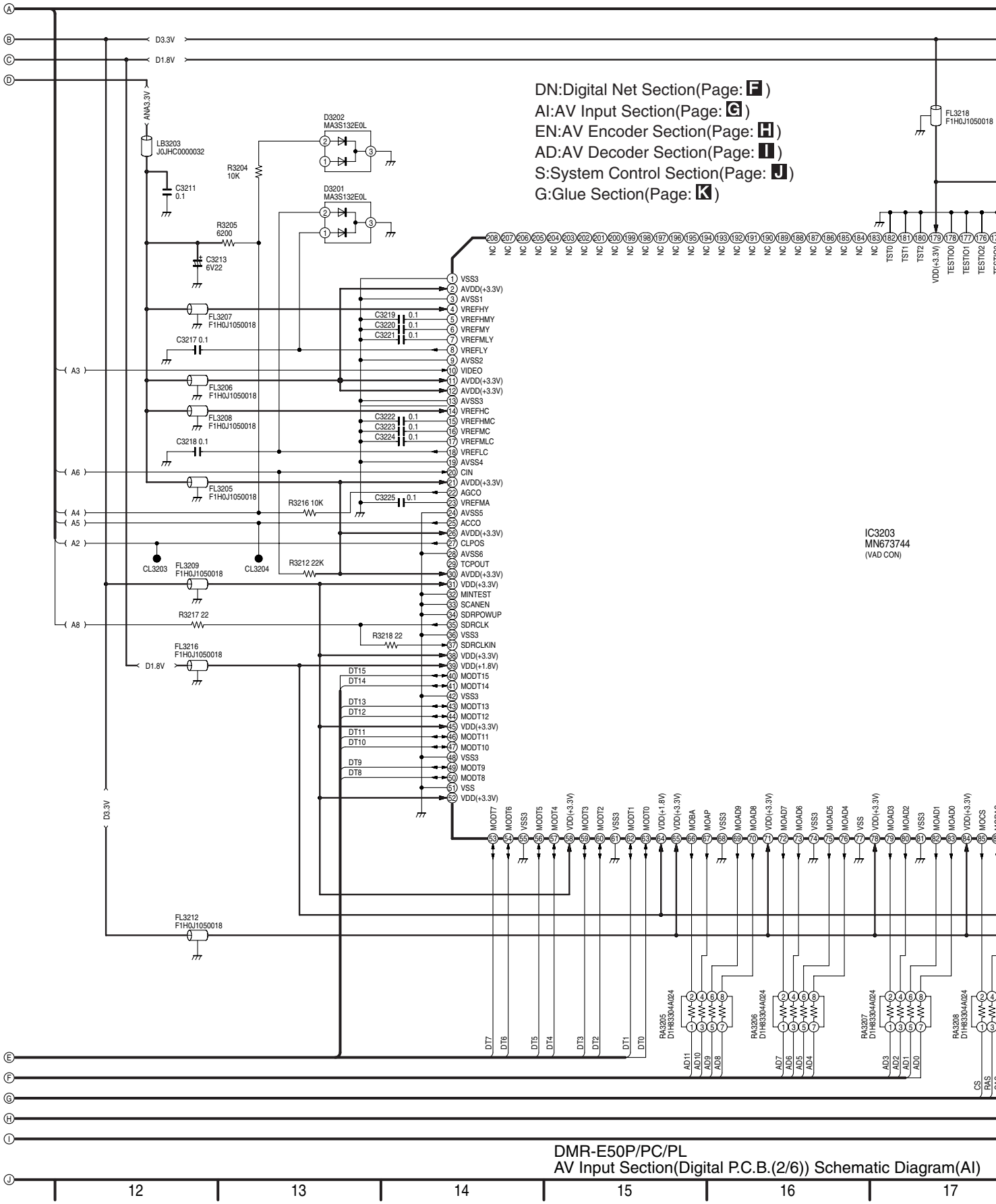
14.9. AV Input Schematic Diagram (AI) (Digital P.C.B. 2/6)



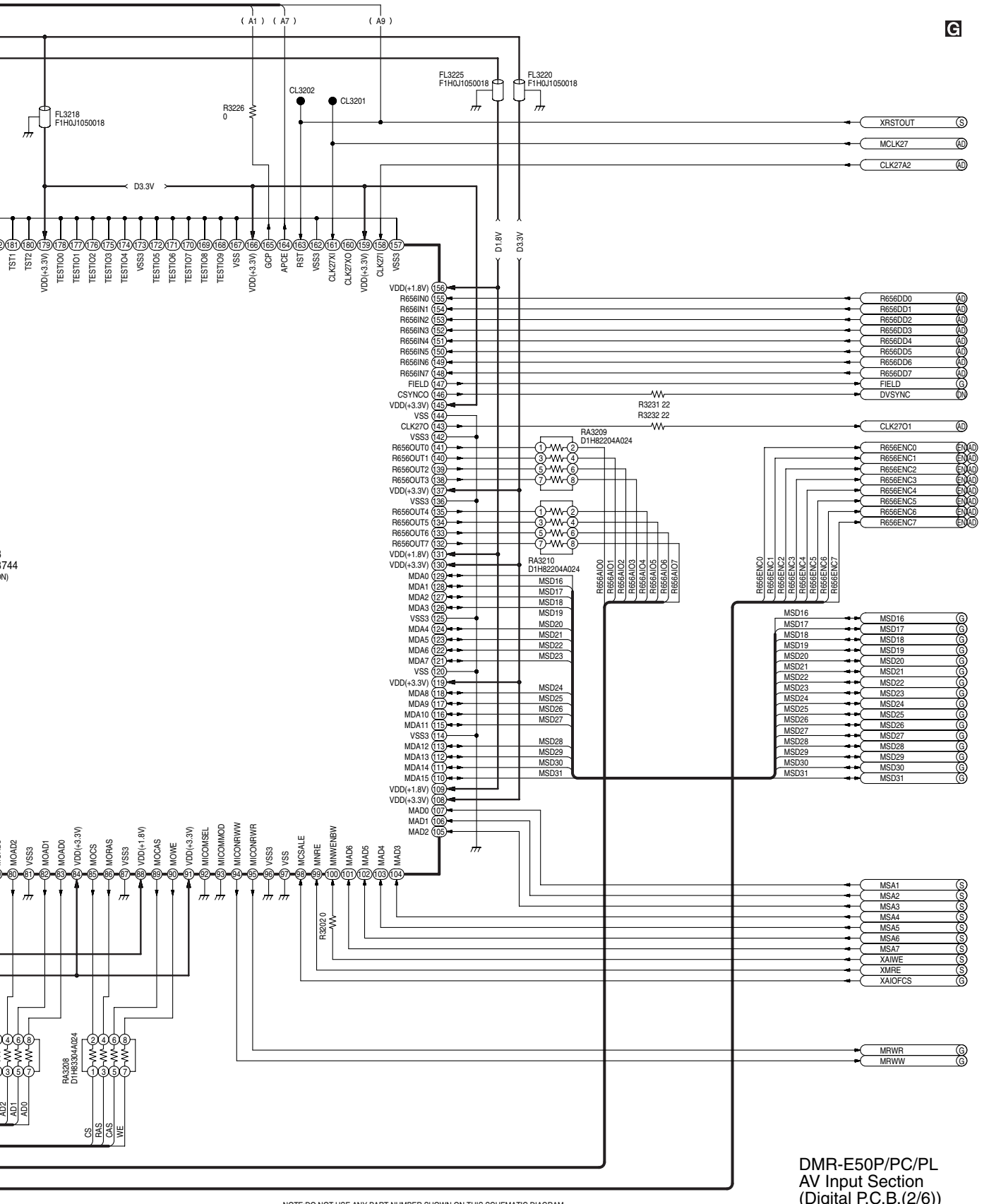


DMR-E50P/PC/PL
AV Input Section(Digital P.C.B.(2/6)) Schematic Diagram(AI)

6 | 7 | 8 | 9 | 10 | 11



DMR-E50P/PC/PL
AV Input Section(Digital P.C.B.(2/6)) Schematic Diagram(AI)



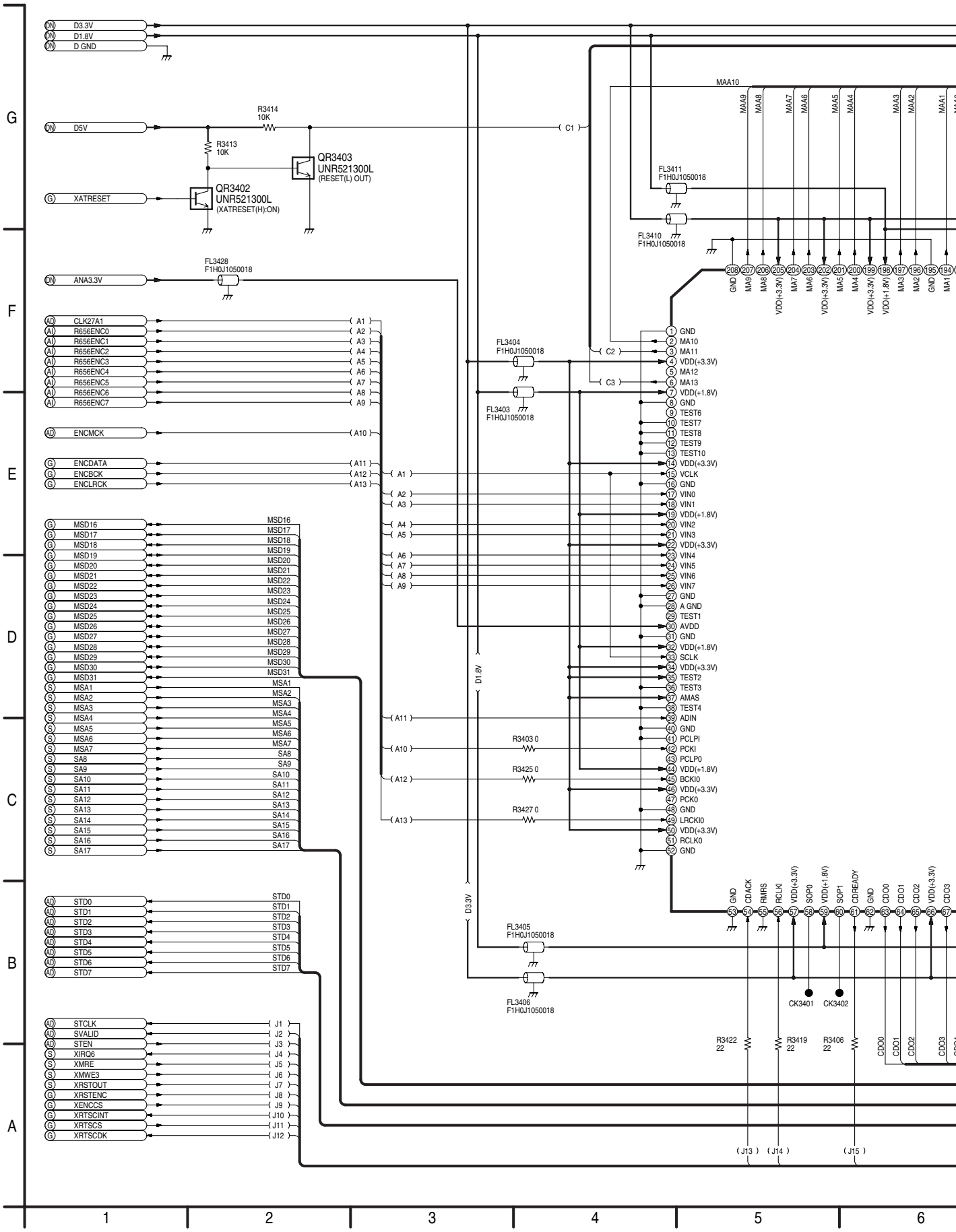
NOTE:DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING.WHEN YOU ORDER A PART,PLEASE REFER TO PARTS LIST.

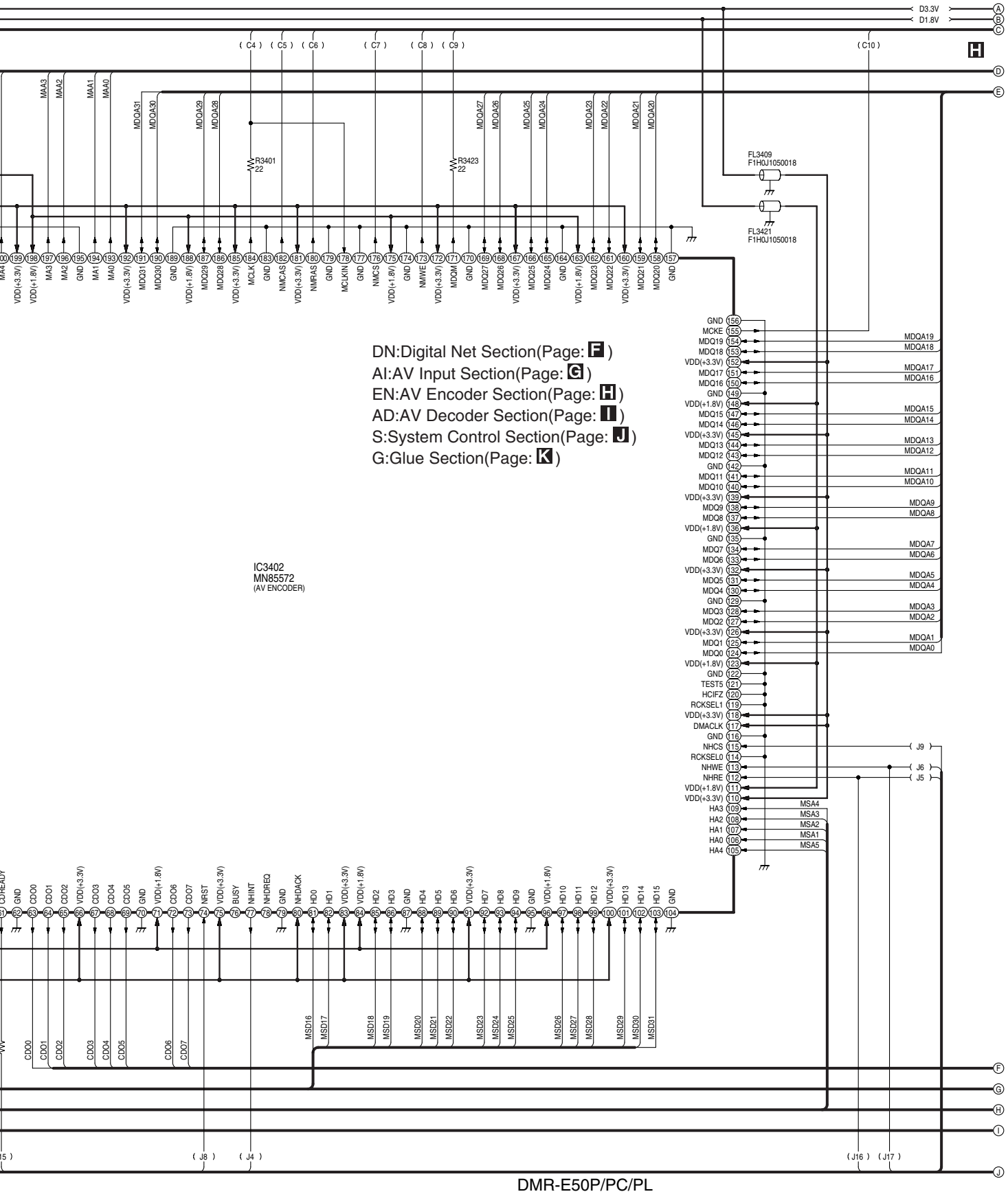
DMR-E50P/PC/PL
AV Input Section
(Digital P.C.B.(2/6))
Schematic Diagram(AI)

Diagram(AI)

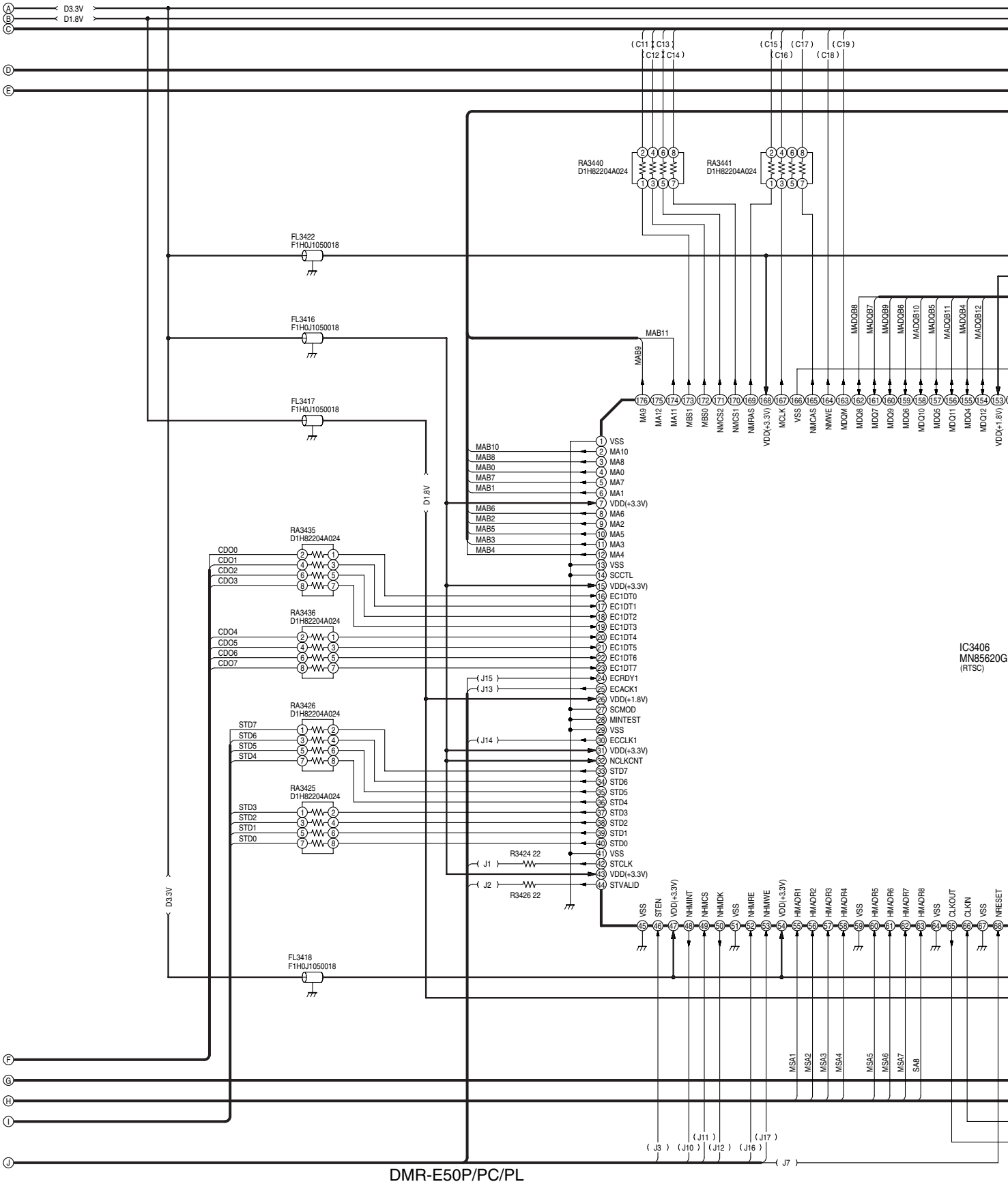
17	18	19	20	21	22

14.10. AV Encoder Schematic Diagram (EN) (Digital P.C.B. 3/6)

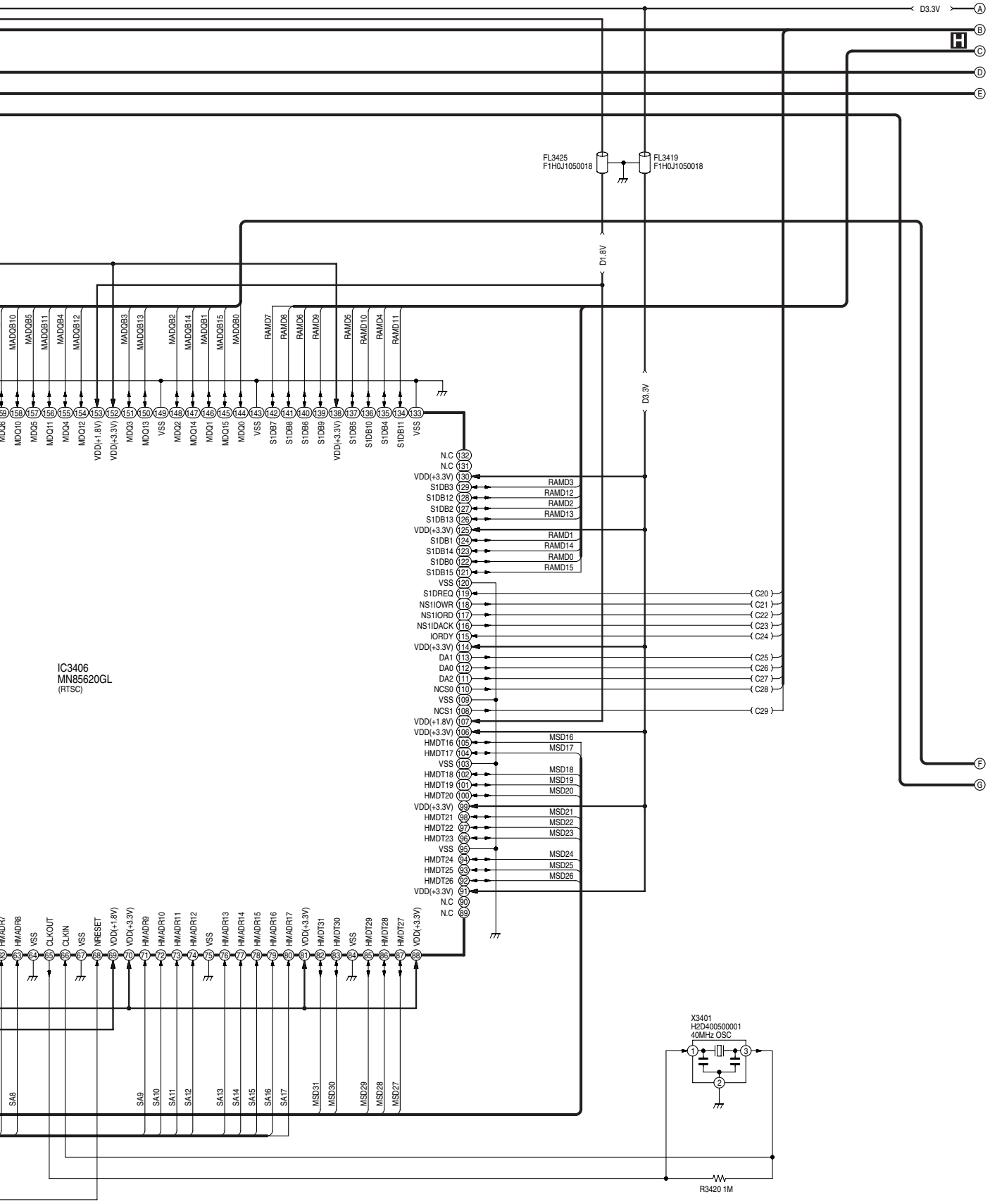




DMR-E50P/PC/PL
AV Encoder Section(Digital P.C.B.(3/6)) Schematic Diagram(EN)

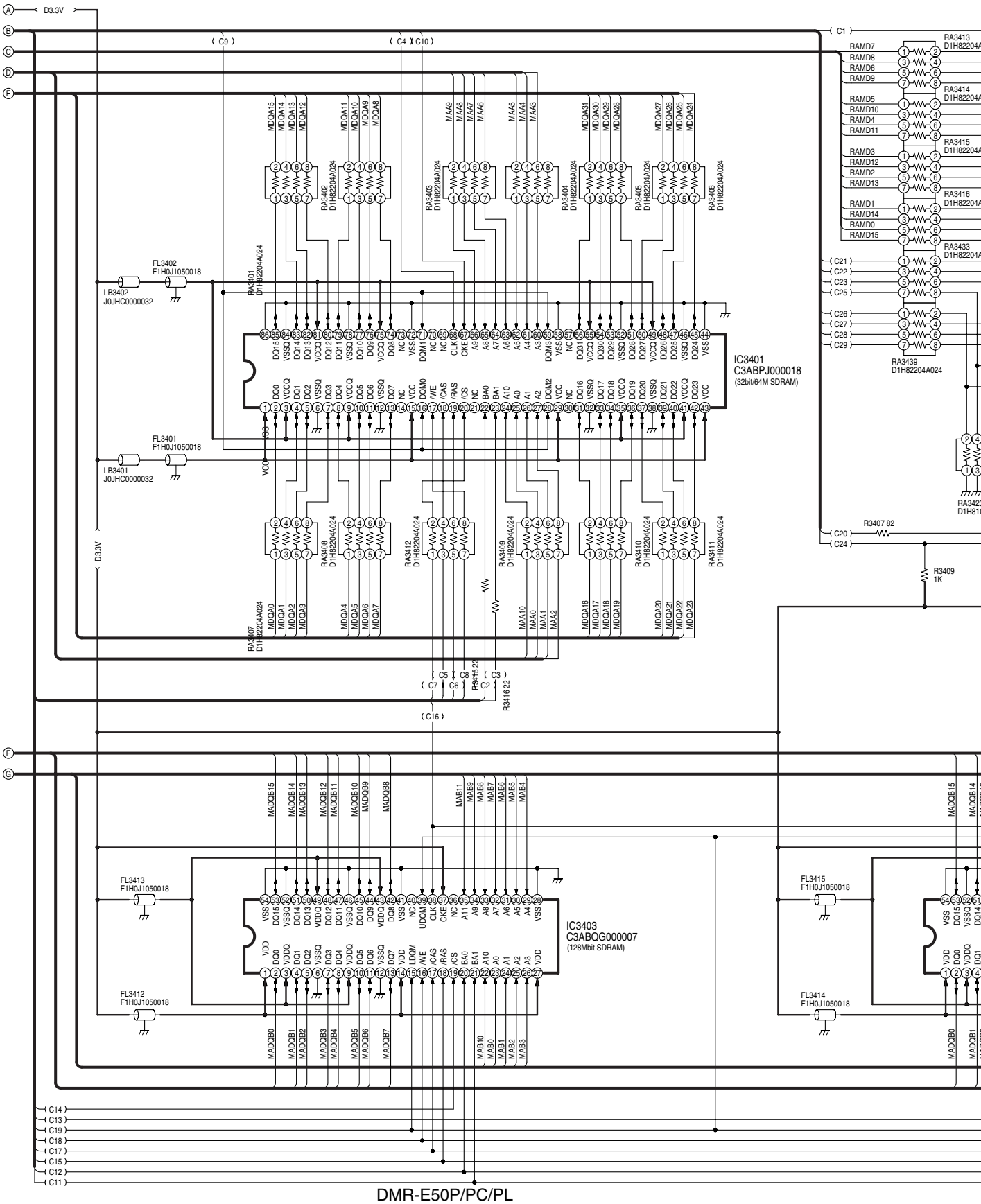


DMR-E50P/PC/PL
AV Encoder Section(Digital P.C.B.(3/6)) Schematic Diagram(EN)

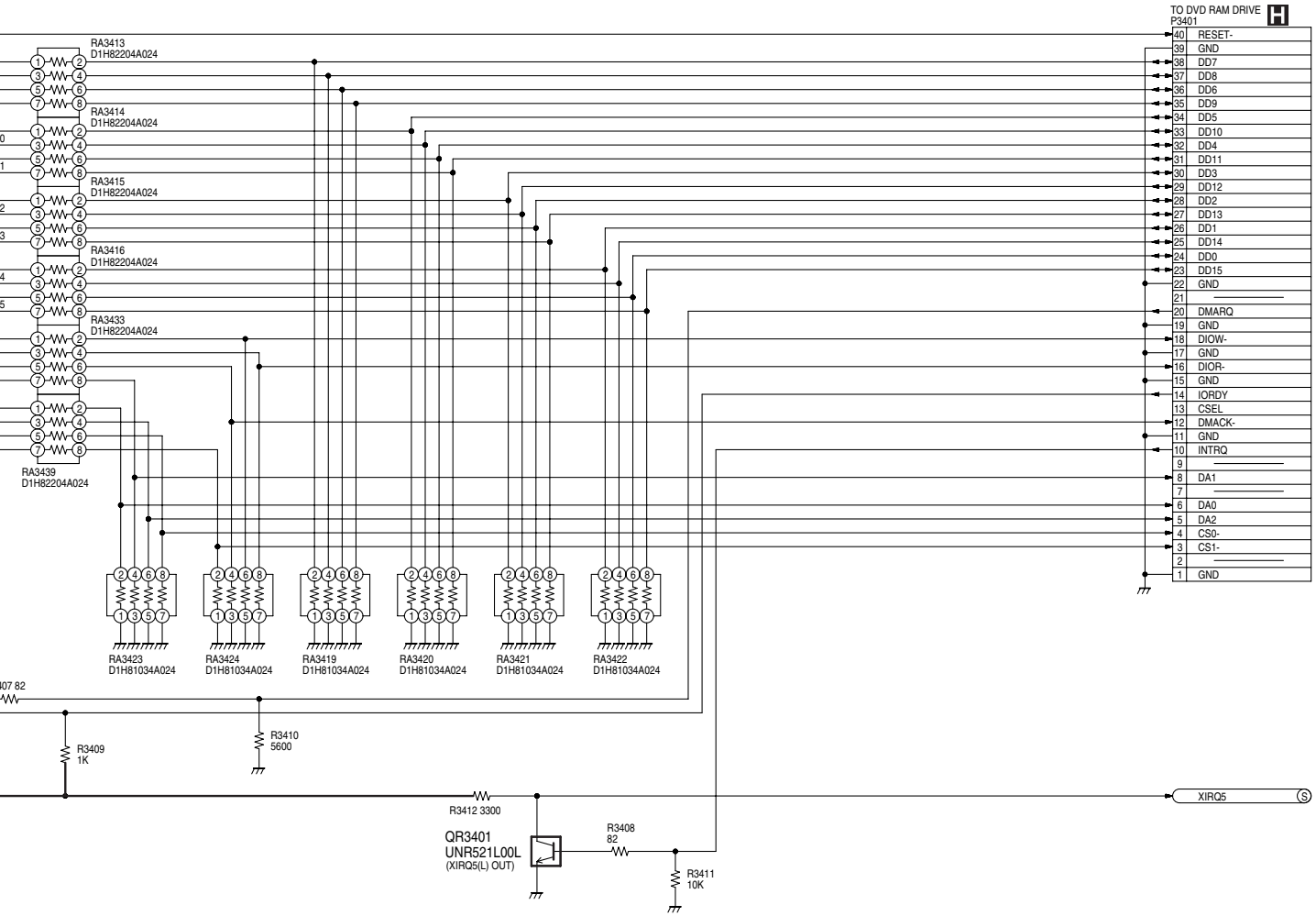


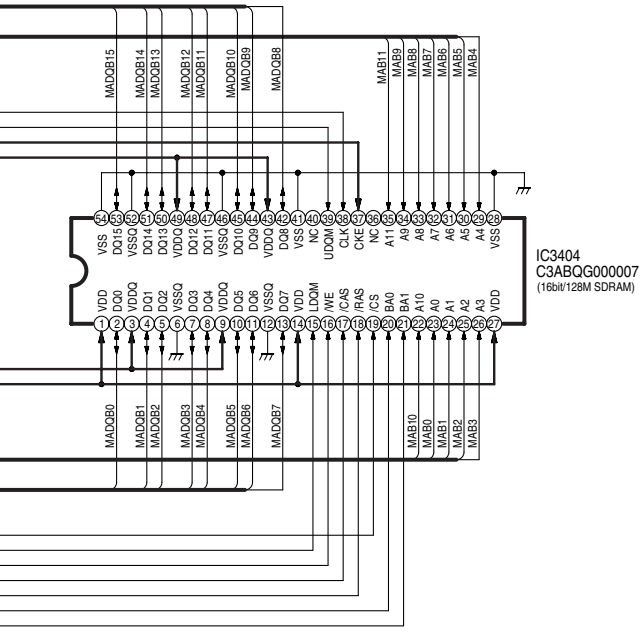
DMR-E50P/PC/PL
AV Encoder Section(Digital P.C.B.(3/6)) Schematic Diagram(EN)

17 | 18 | 19 | 20 | 21 | 22



DMR-E50P/PC/PL
AV Encoder Section(Digital P.C.B.(3/6)) Schematic Diagram(EN)





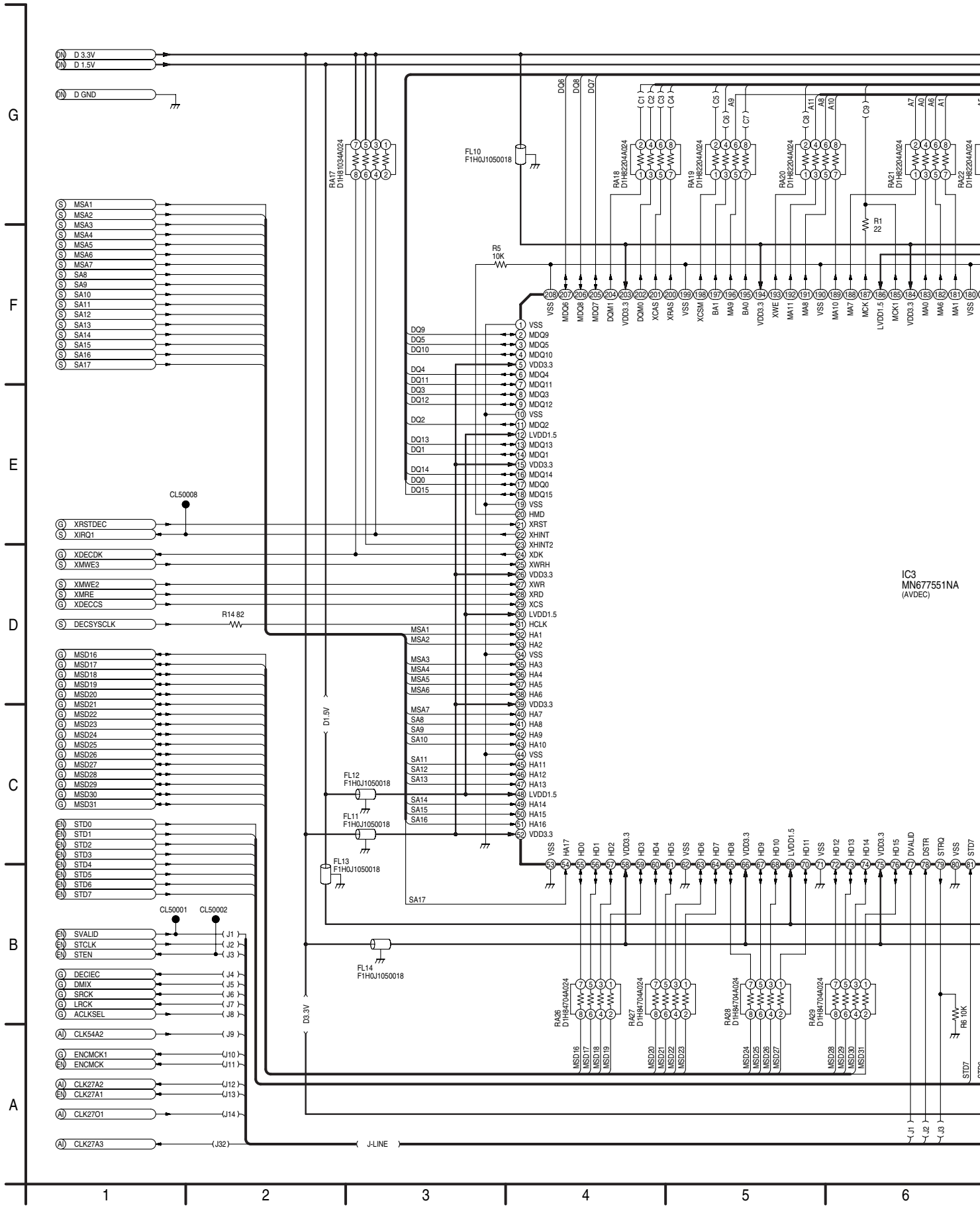
DN:Digital Net Section(Page: F)
AI:AV Input Section(Page: G)
EN:AV Encoder Section(Page: H)
AD:AV Decoder Section(Page: I)
S:System Control Section(Page: J)
G:Glue Section(Page: K)

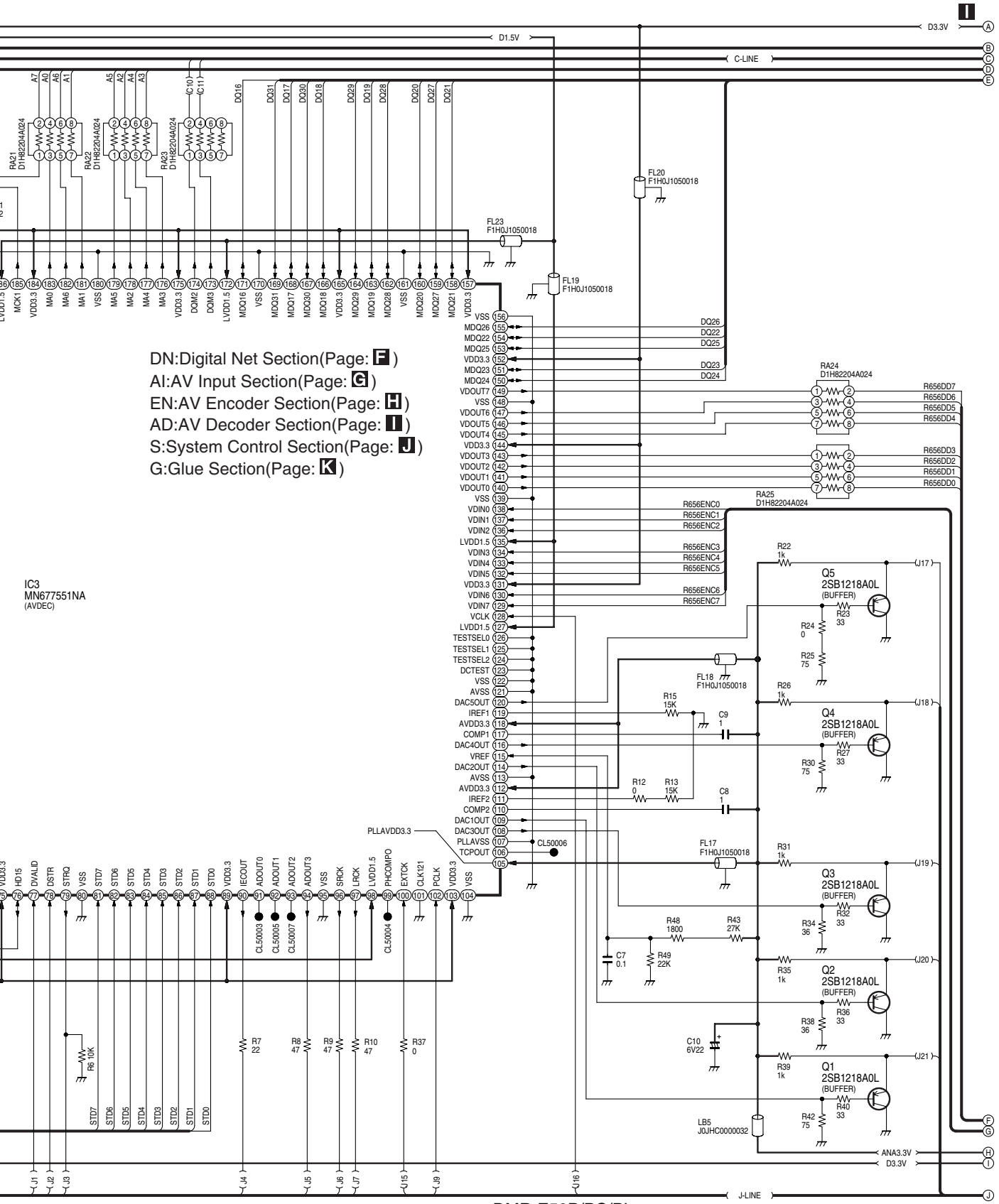
NOTE:
DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM
FOR ORDERING.WHEN YOU ORDER A PART,PLEASE REFER TO PARTS LIST.

DMR-E50P/PC/PL
AV Encoder Section(Digital P.C.B.(3/6)) Schematic Diagram(EN)

28 29 30 31 32

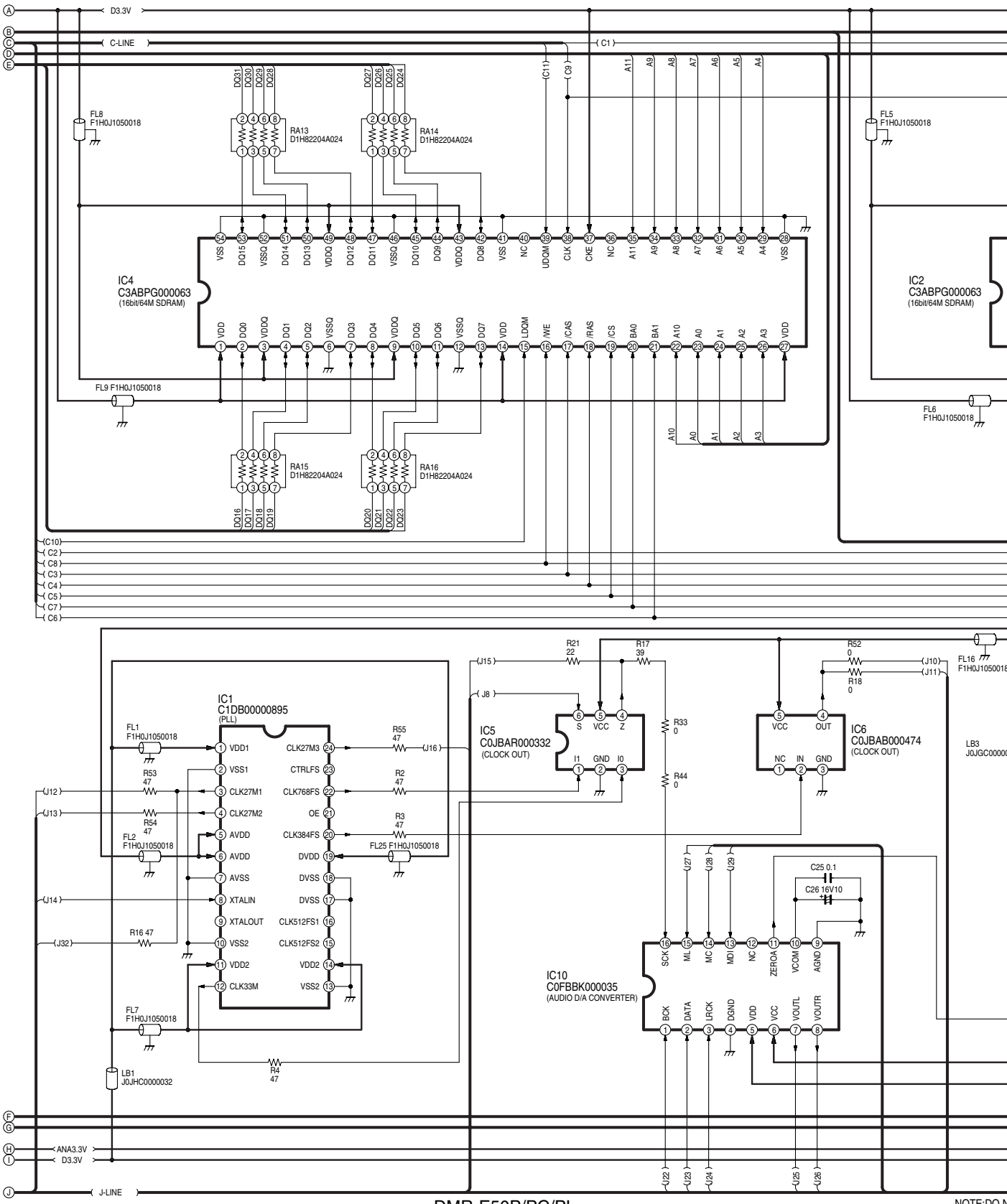
14.11. AV Decoder Schematic Diagram (AD) (Digital P.C.B. 4/6)





DMR-E50P/PC/PL
AV Decoder Section(Digital P.C.B.(4/6)) Schematic Diagram(AD)

6 | 7 | 8 | 9 | 10 | 11

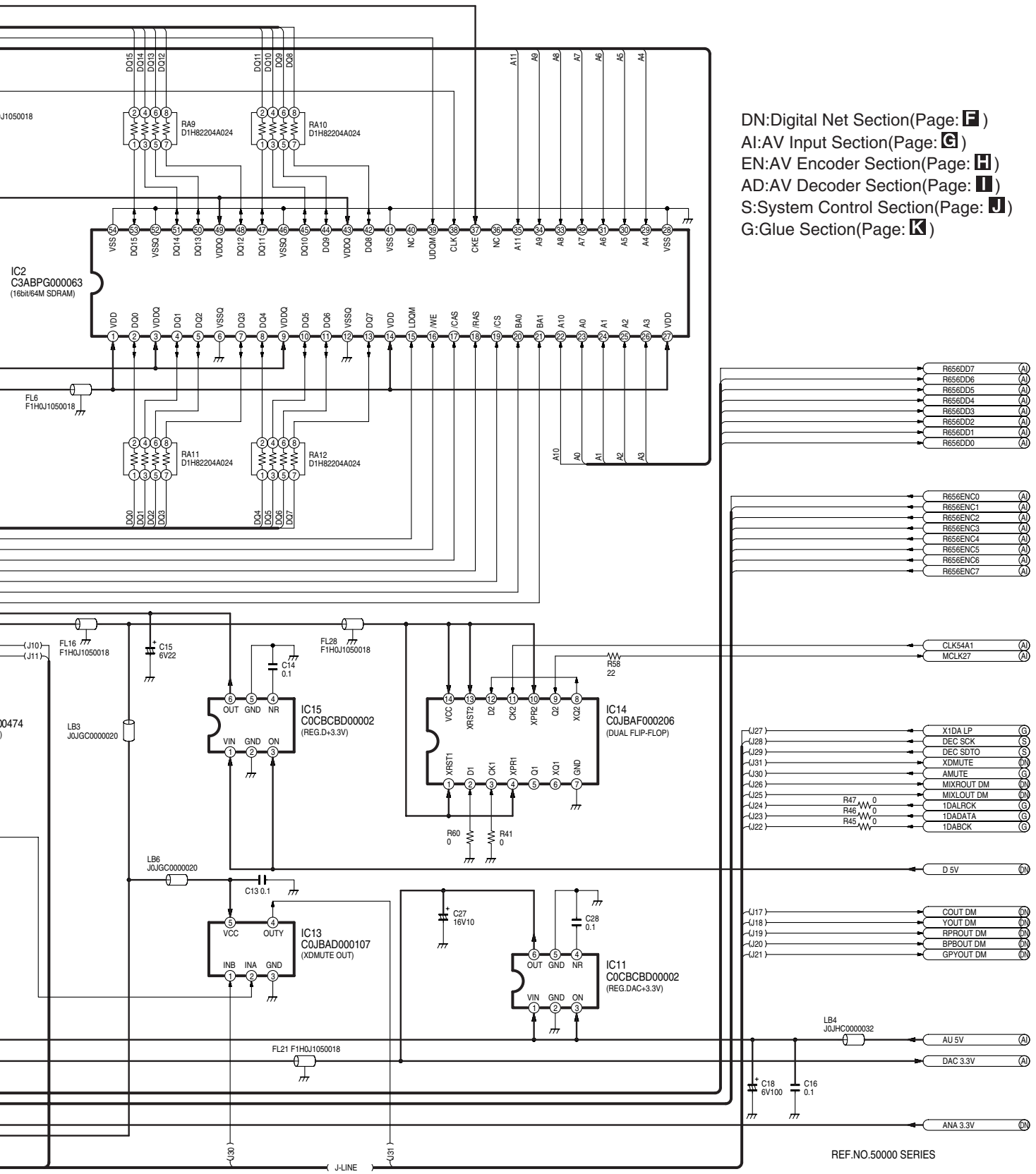


DMR-E50P/PC/PL
AV Decoder Section(Digital P.C.B.(4/6)) Schematic Diagram(AD)

NOTE:DO N
PART
SINC

12 | 13 | 14 | 15 | 16 | 17

DN:Digital Net Section(Page: F)
AI:AV Input Section(Page: G)
EN:AV Encoder Section(Page: H)
AD:AV Decoder Section(Page: I)
S:System Control Section(Page: J)
G:Glue Section(Page: K)

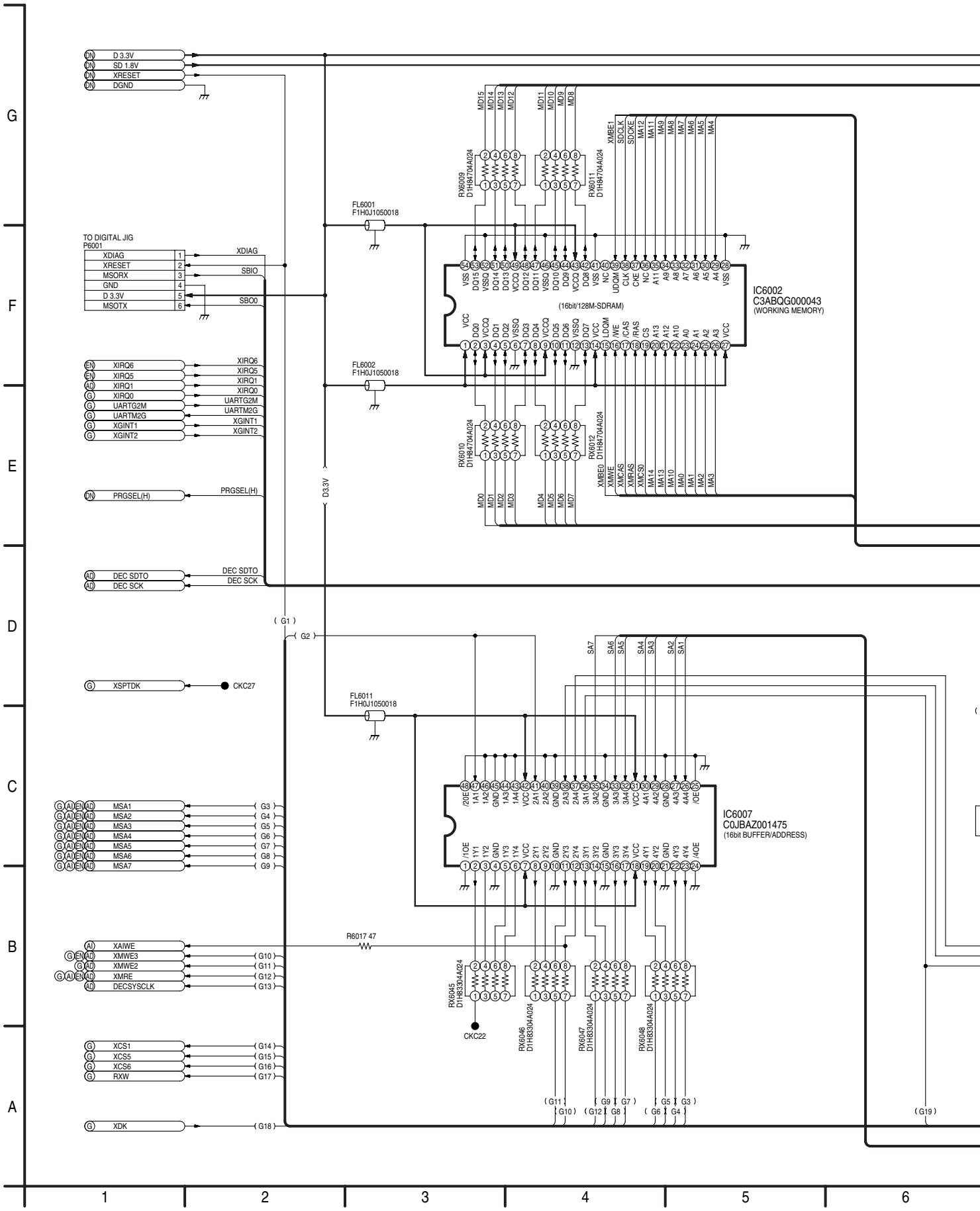


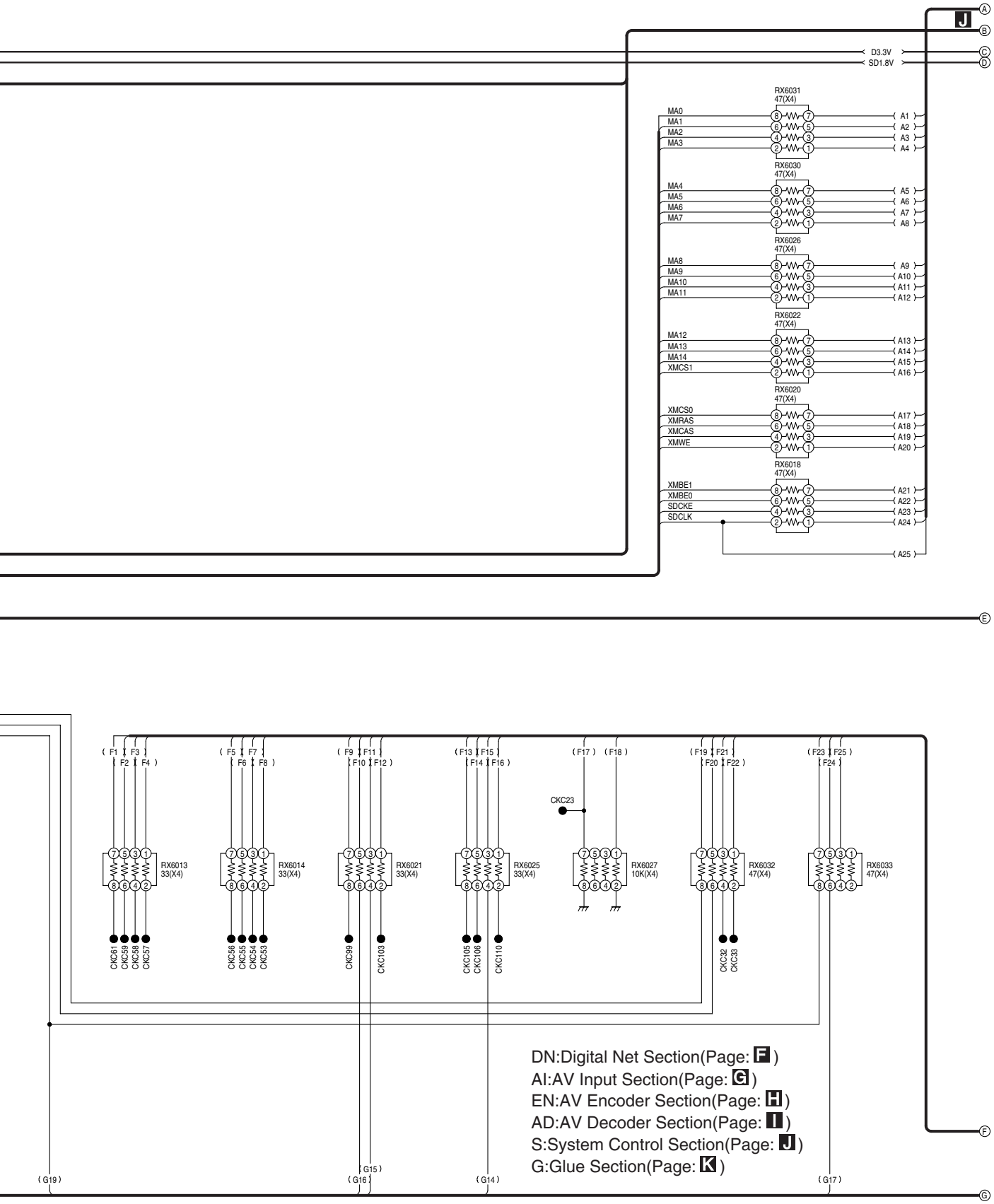
NOTE:DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST,AND MAY BE SLIGHTLY DIFFERNT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

DMR-E50P/PC/PL
AV Decoder Section(Digital P.C.B.(4/6)) Schematic Diagram(AD)

17 | 18 | 19 | 20 | 21 | 22

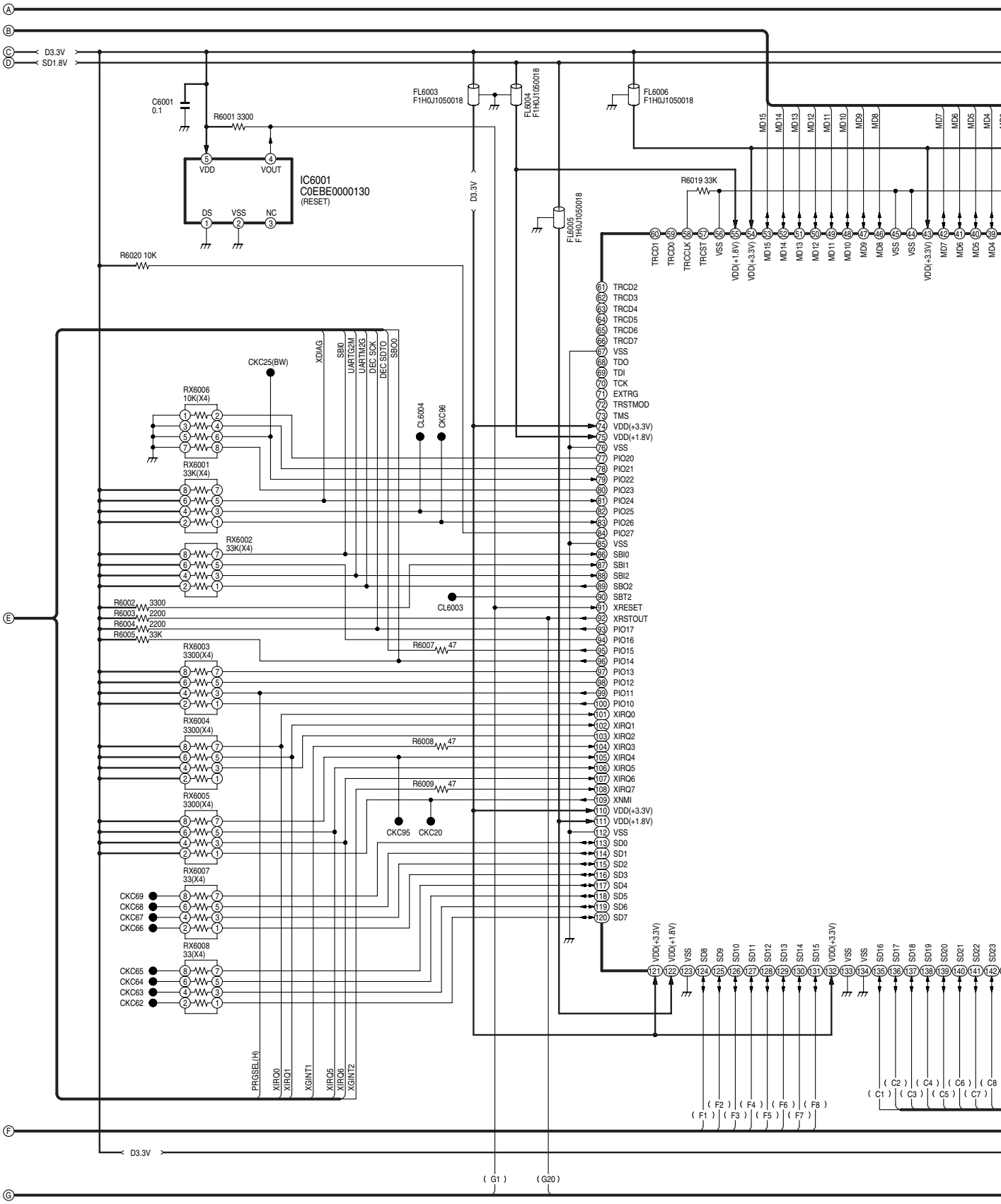
14.12. System Control Schematic Diagram (S) (Digital P.C.B. 5/6)



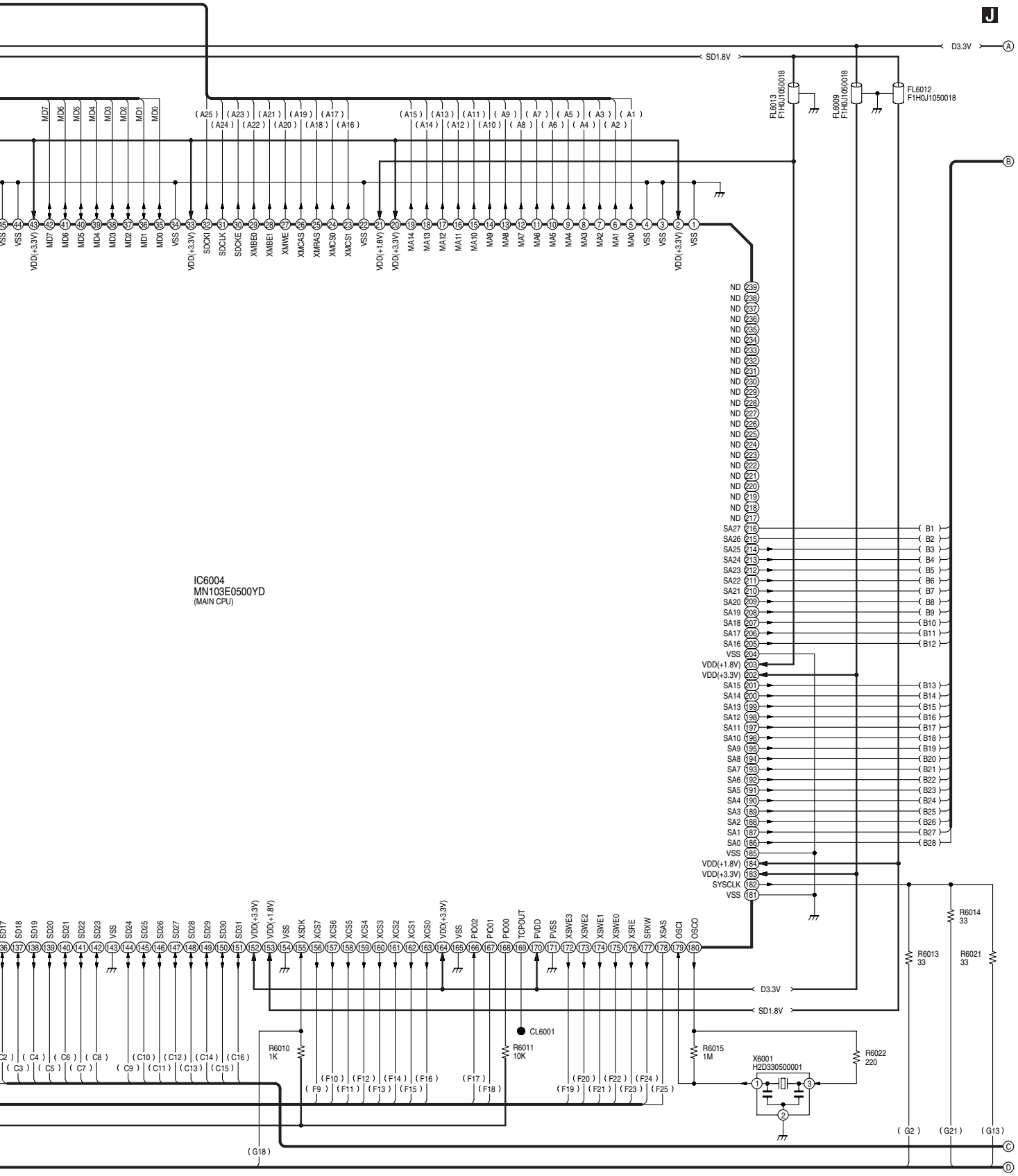


DMR-E50P/PC/PL
System Control Section(Digital P.C.B.(5/6)) Schematic Diagram(S)

6 | 7 | 8 | 9 | 10 | 11



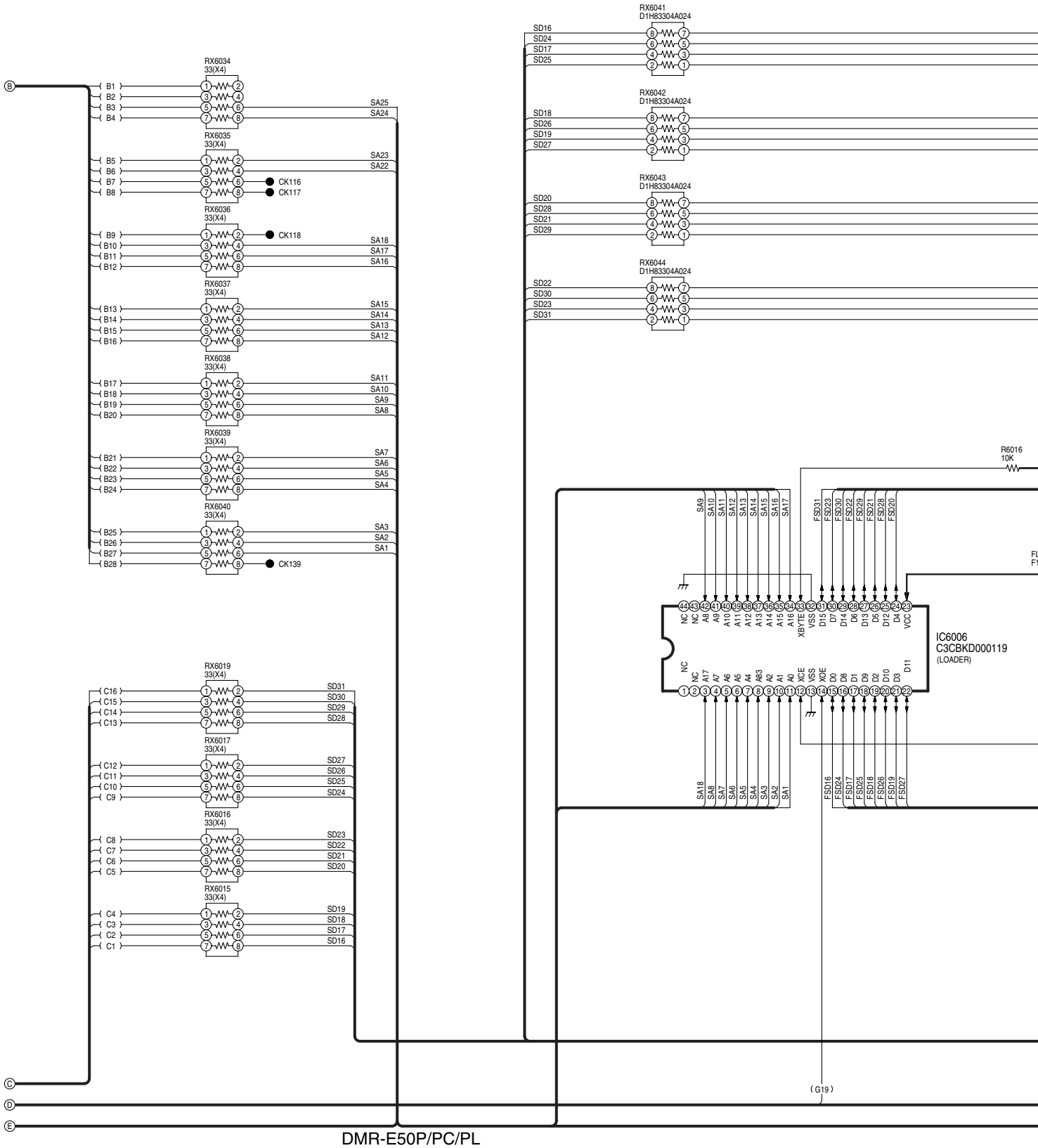
DMR-E50P/PC/PL
System Control Section(Digital P.C.B.(5/6)) Schematic Diagram(S)



c Diagram(S)

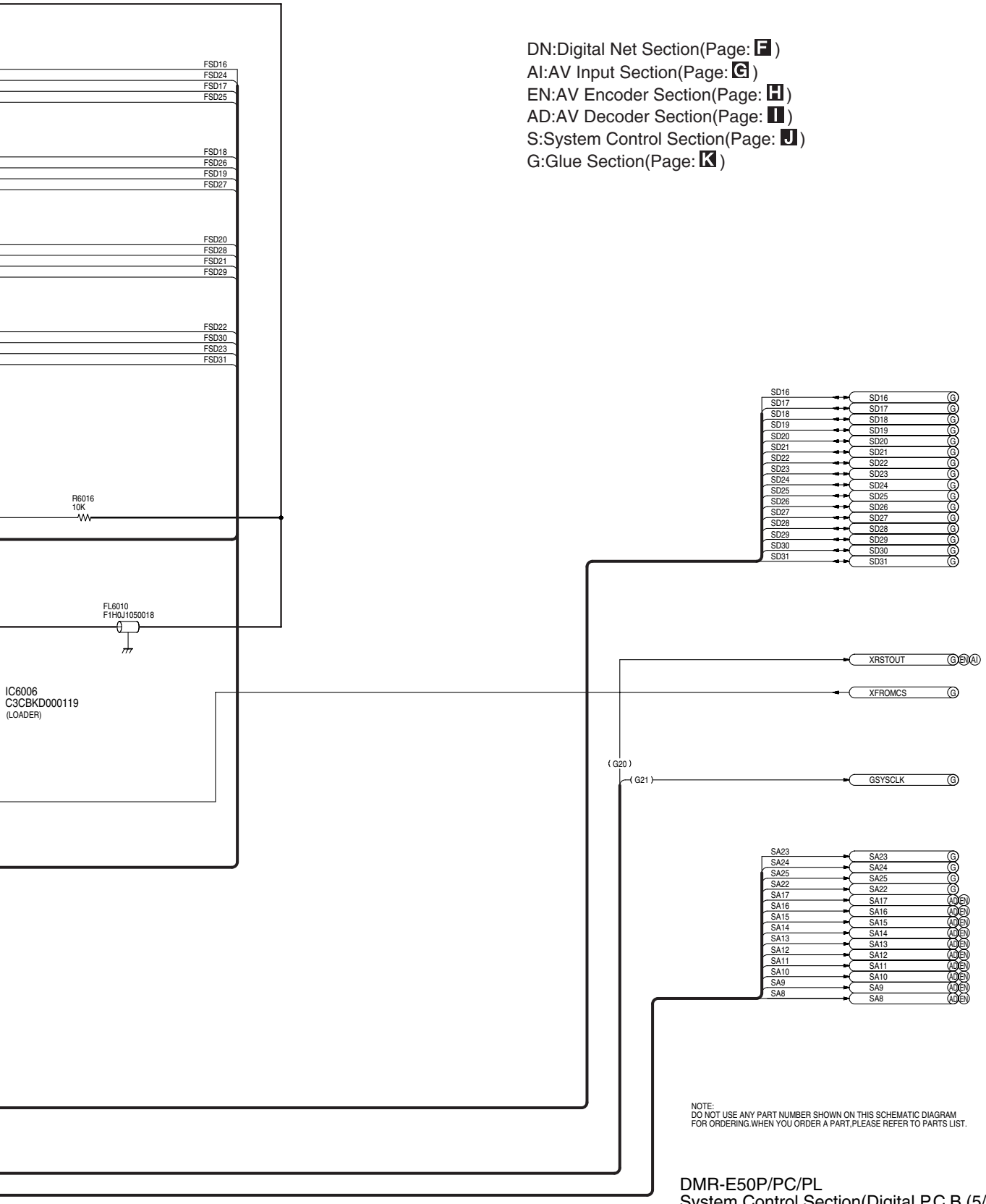
DMR-E50P/PC/PL
System Control Section(Digital P.C.B.(5/6)) Schematic Diagram(S)

17	18	19	20	21	22



DMR-E50P/PC/PL
System Control Section(Digital P.C.B.(5/6)) Schematic Diagram(S)

DN:Digital Net Section(Page: F)
AI:AV Input Section(Page: G)
EN:AV Encoder Section(Page: H)
AD:AV Decoder Section(Page: I)
S:System Control Section(Page: J)
G:Glue Section(Page: K)

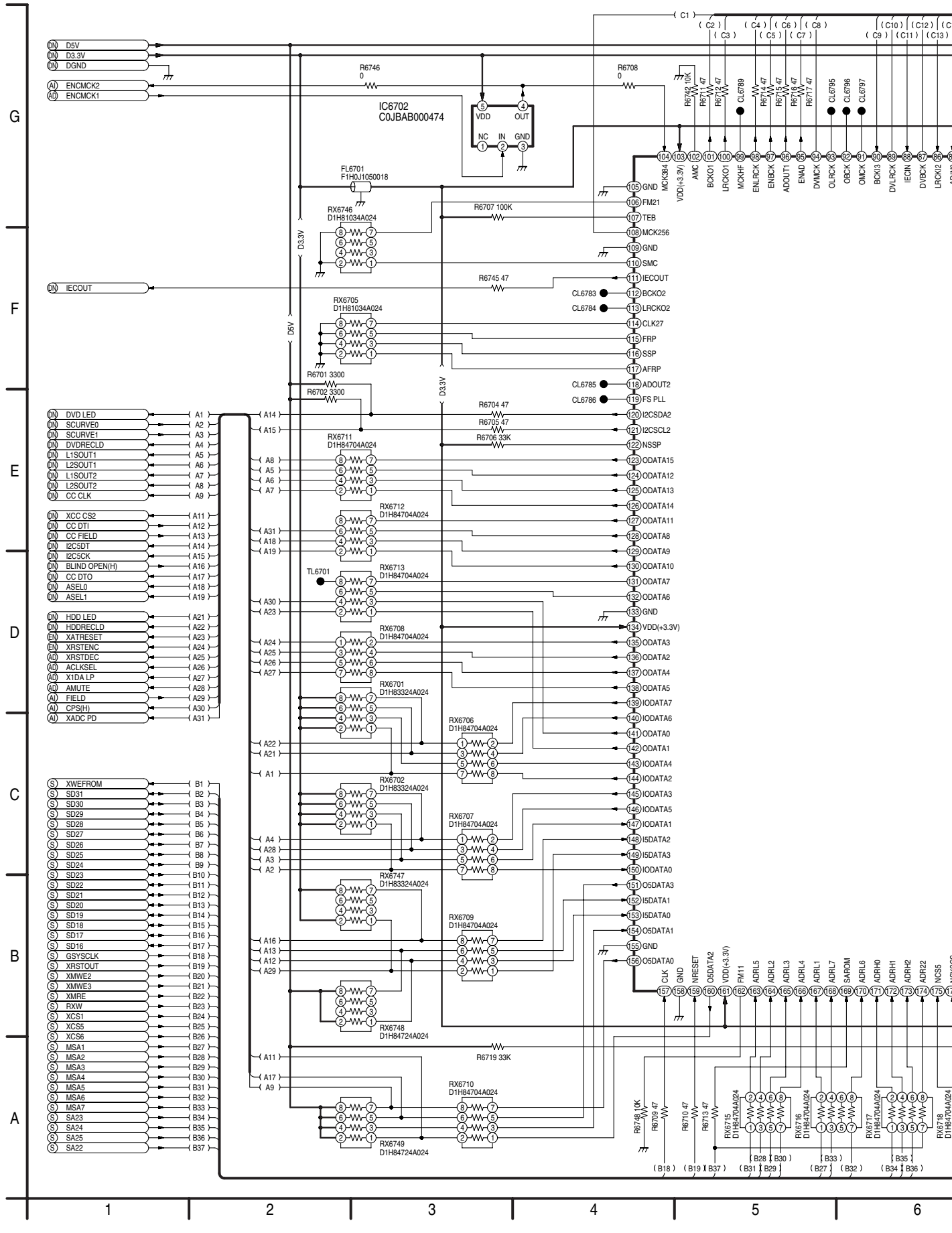


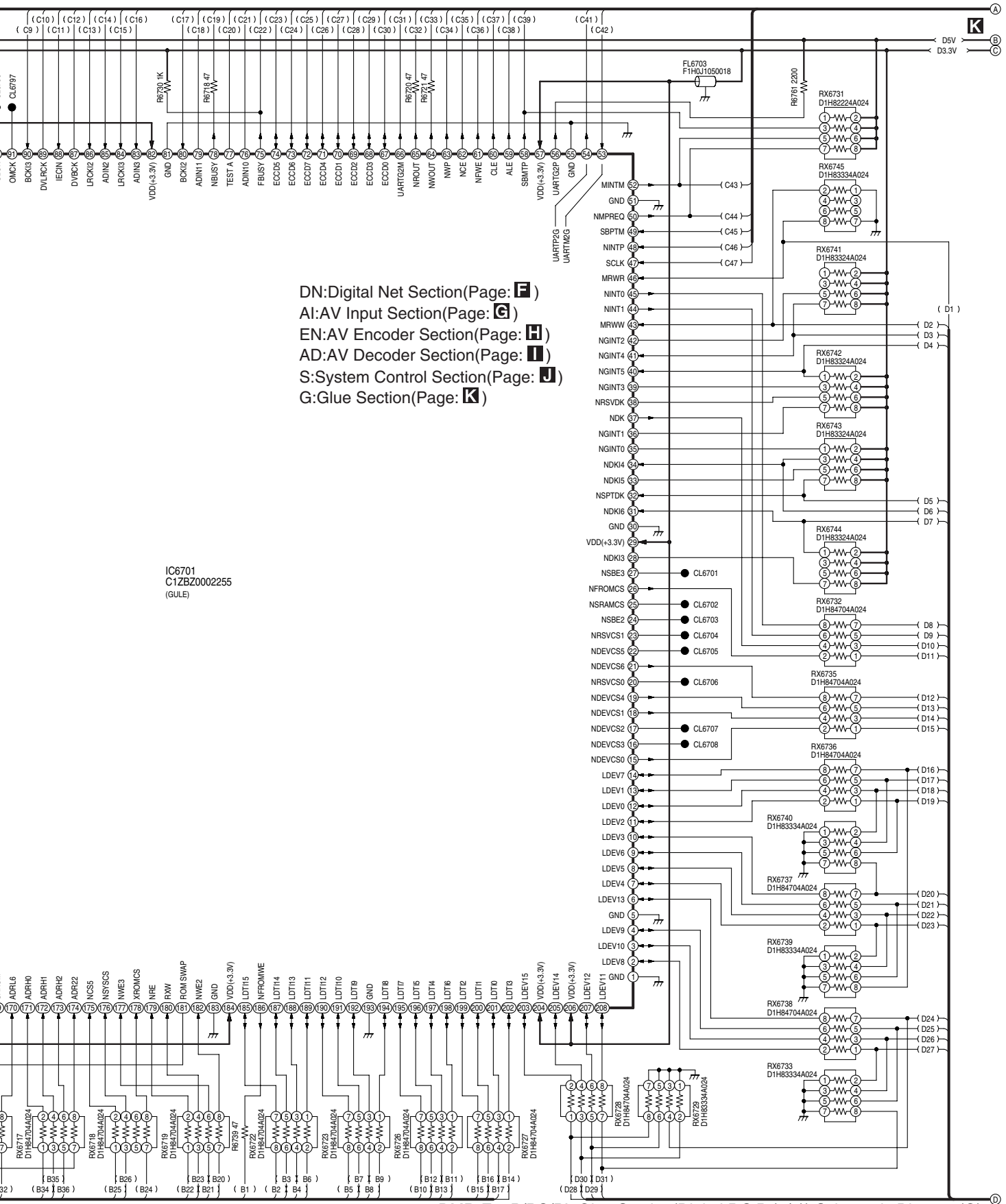
NOTE:
DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING.WHEN YOU ORDER A PART,PLEASE REFER TO PARTS LIST.

DMR-E50P/PC/PL
System Control Section(Digital P.C.B.(5/6))
Schematic Diagram(S)

28 | 29 | 30 | 31 | 32 | 33

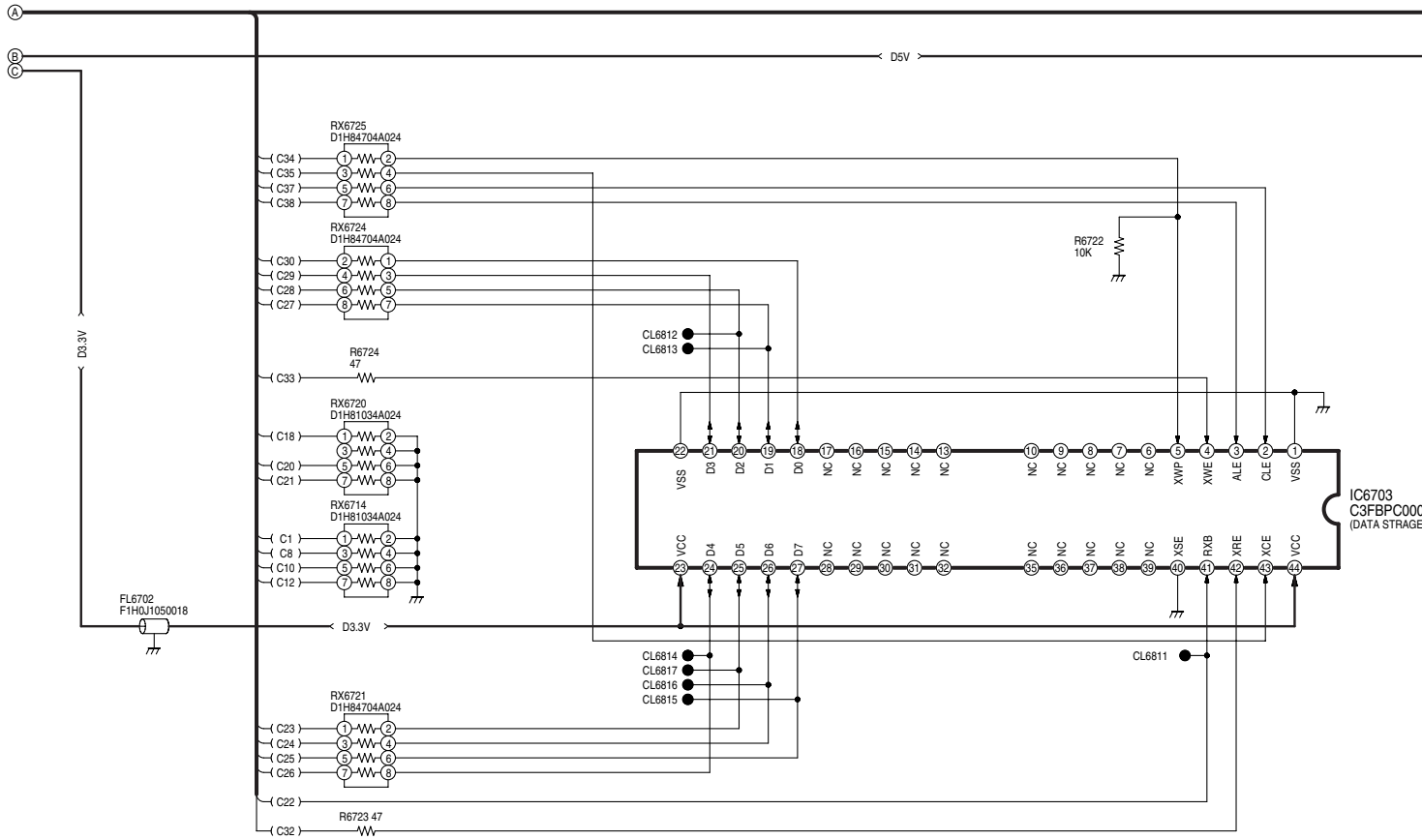
14.13. Glue Schematic Diagram (G) (Digital P.C.B. 6/6)





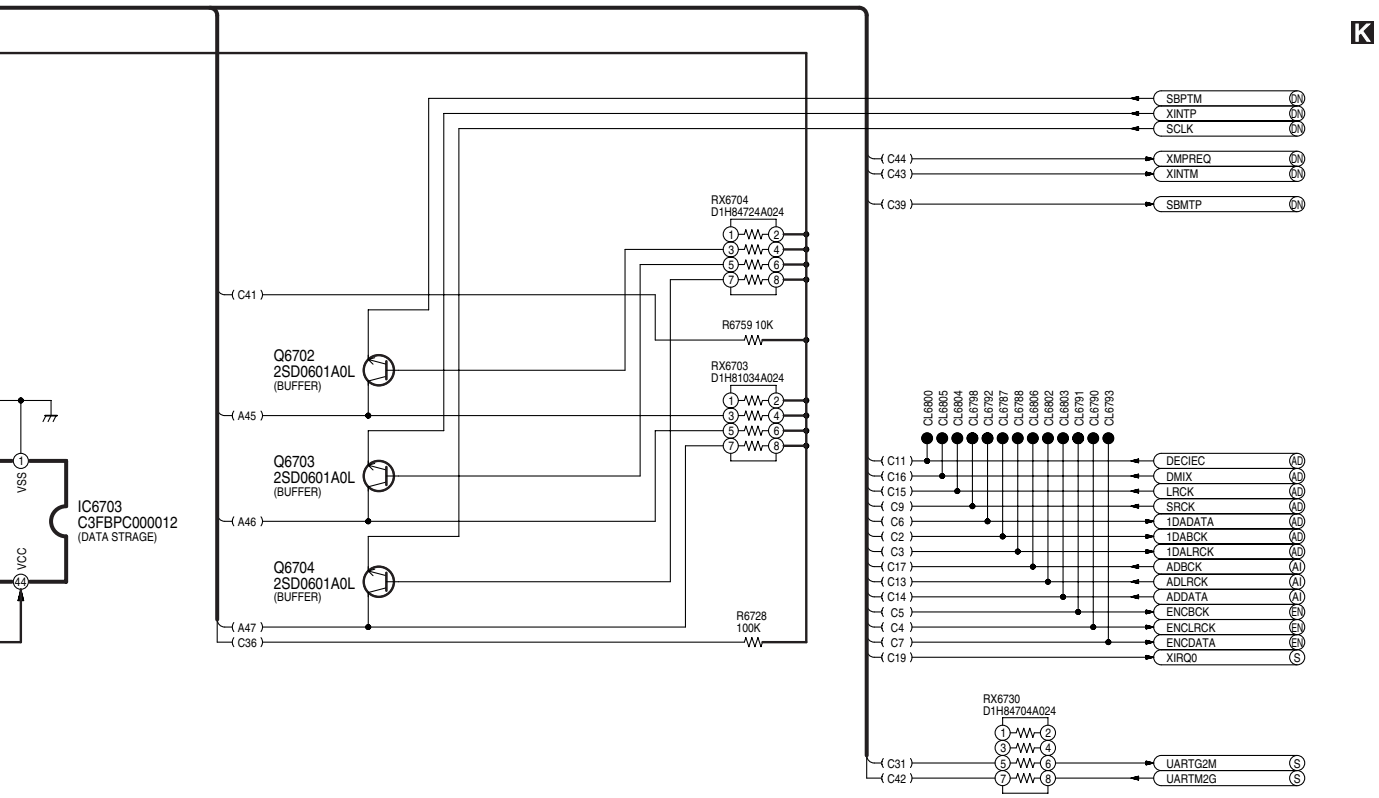
DMR-E50P/PC/PL Glue Section(Digital P.C.B.(6/6)) Schematic Diagram(G)

6 7 8 9 10 11

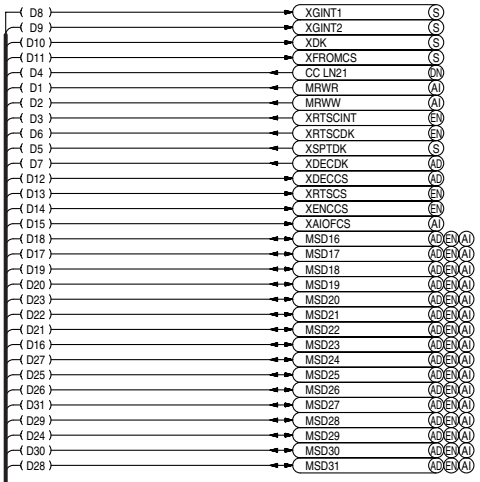


DMR-E50P/PC/PL Glue Section(Digital P.C.B.(6/6)) Schematic Diagram(G)

12 | 13 | 14 | 15 | 16 | 17



DN:Digital Net Section(Page: F)
AI:AV Input Section(Page: G)
EN:AV Encoder Section(Page: H)
AD:AV Decoder Section(Page: I)
S:System Control Section(Page: J)
G:Glue Section(Page: K)



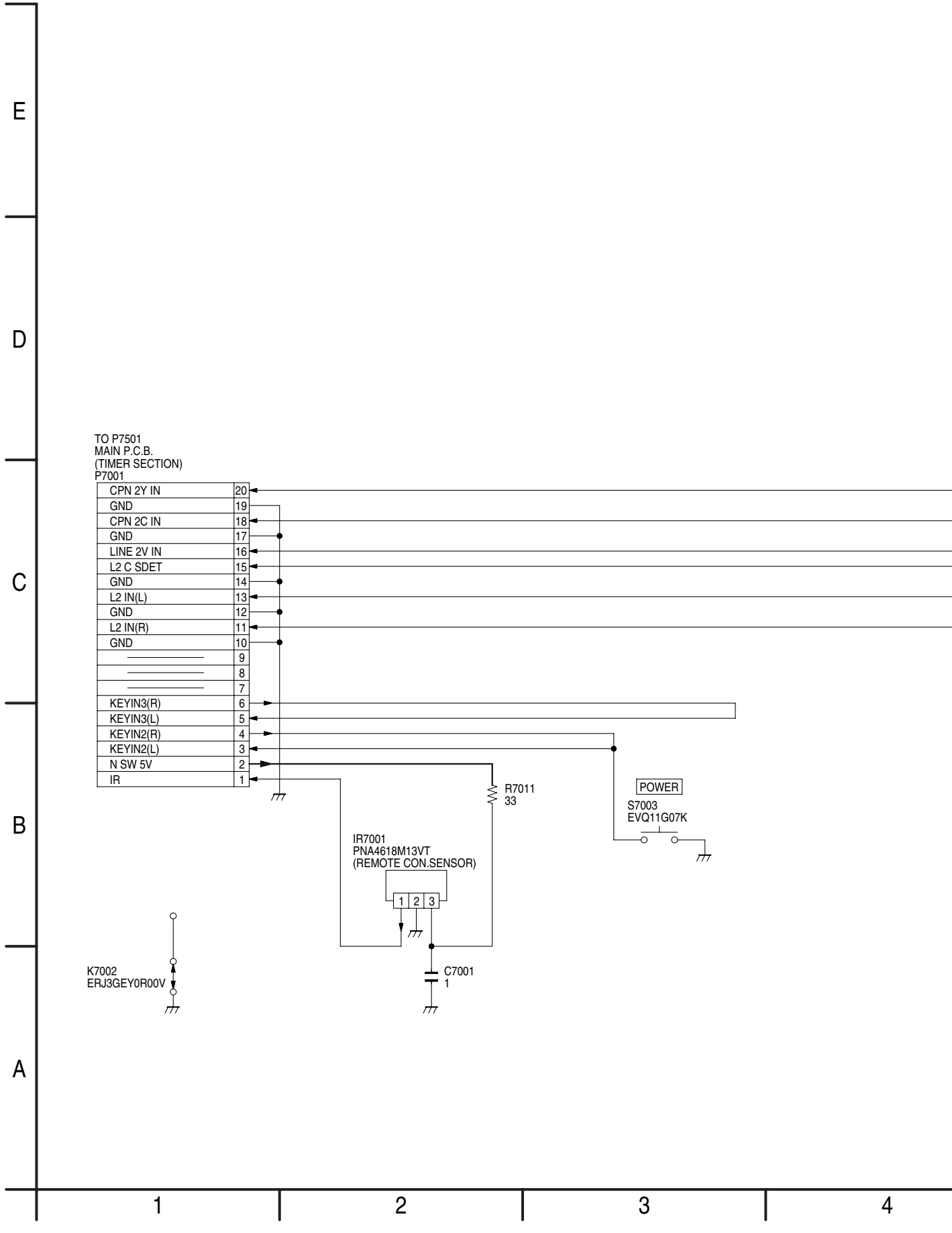
NOTE:DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERNT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

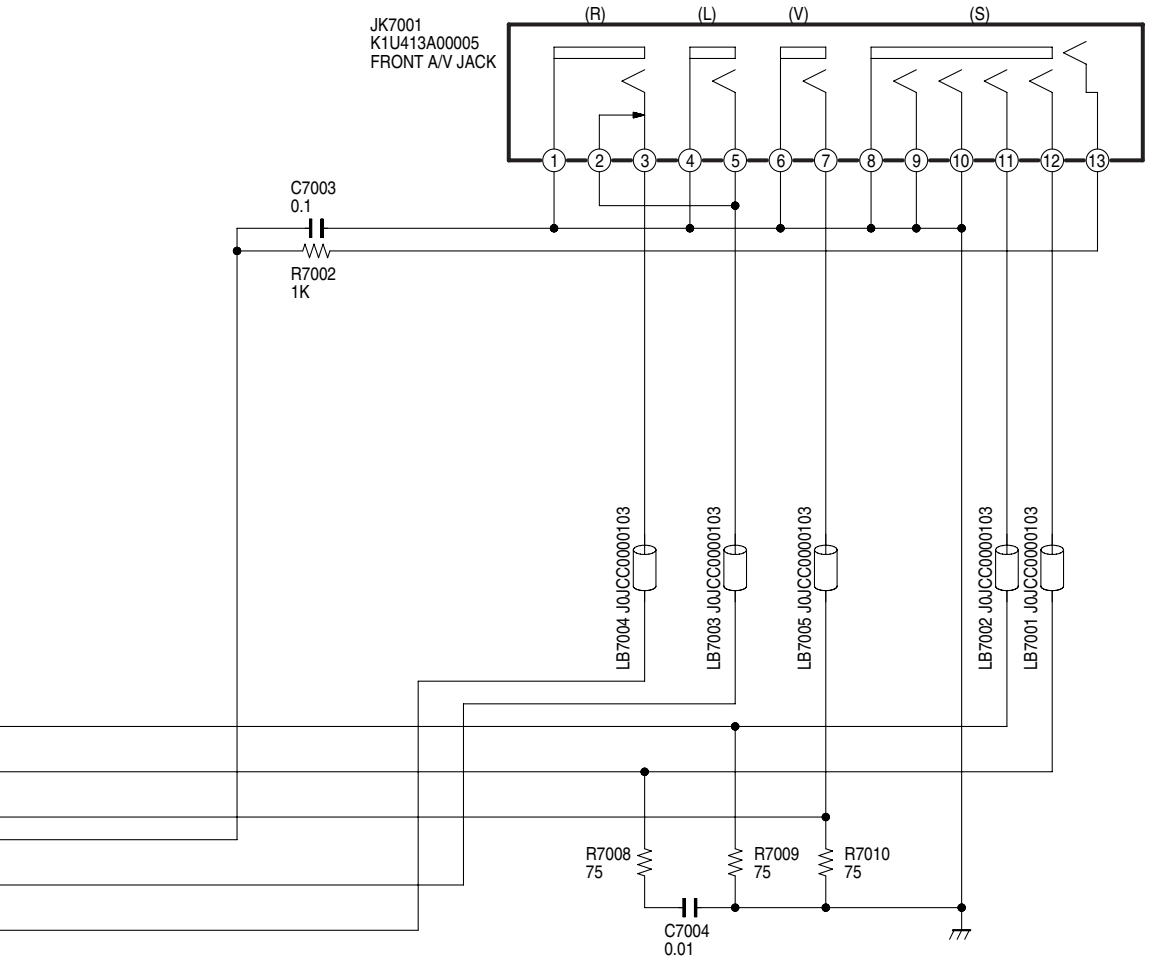
DMR-E50P/PC/PL
Glue Section(Digital P.C.B.(6/6))
Schematic Diagram(G)

ram(G)

18	19	20	21	22

14.14. Front (L) Schematic Diagram



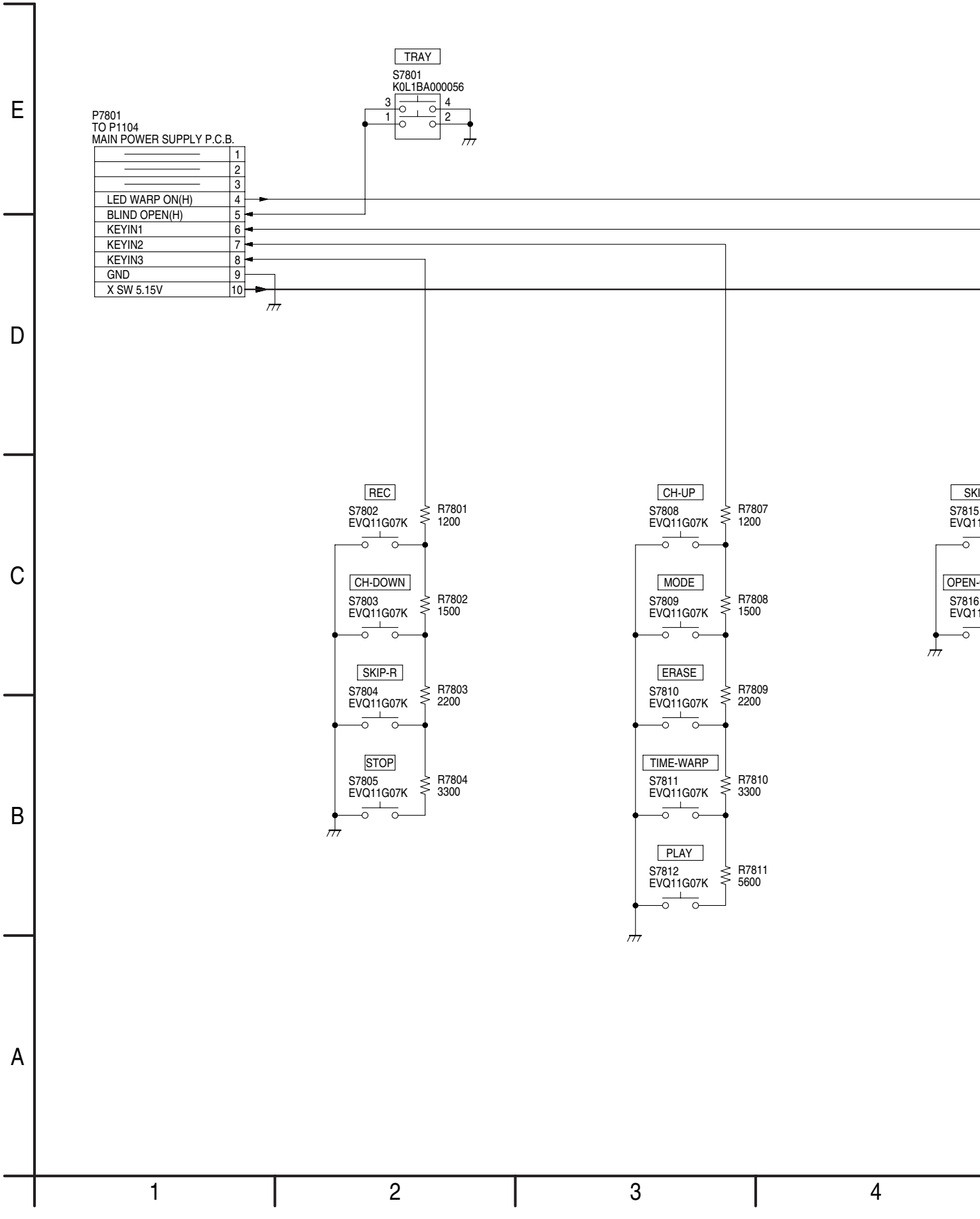


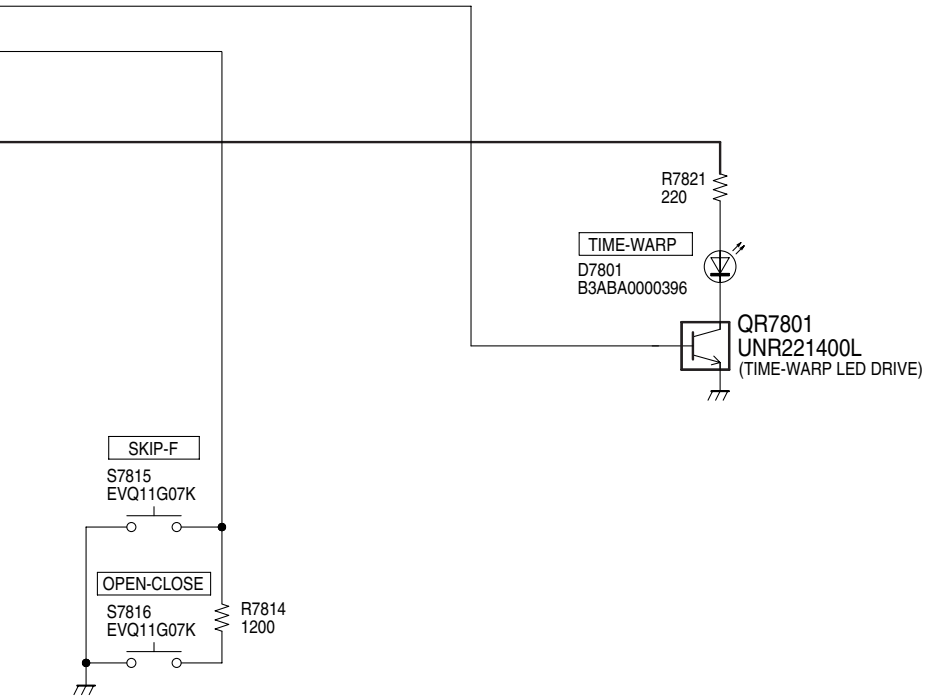
NOTE:DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING.
THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST,AND MAY BE
SLIGHTLY DIFFERNT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

DMR-E50P/PC/PL
Front (L) Schematic Diagram

4	5	6	7

14.15. Front (R) Schematic Diagram



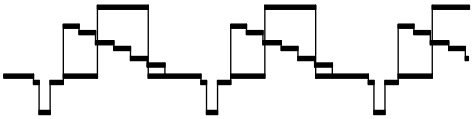


NOTE:DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERNT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

DMR-E50P/PC/PL
Front (R) Schematic Diagram

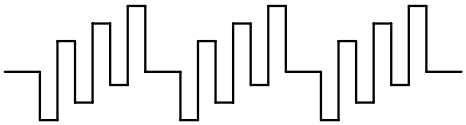
4 | 5 | 6 | 7

WF No. P9001-15 (REC/PLAY)



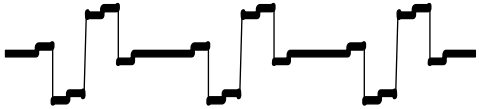
1.1Vp-p(20usec/div)

WF No. P9001-16 (REC/PLAY)



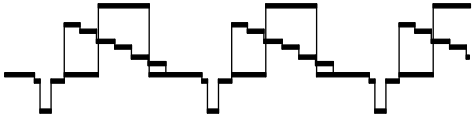
0.6Vp-p(20usec/div)

WF No. P9001-18 (REC/PLAY)



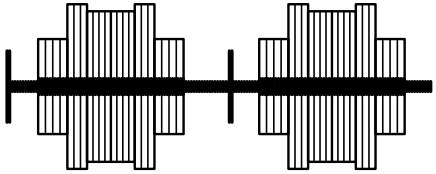
0.6Vp-p(20usec/div)

WF No. P9001-20 (REC/PLAY)



1.0Vp-p(20usec/div)

WF No. P9001-22 (REC/PLAY)



0.7Vp-p(20usec/div)

WF No. P9001-28 (REC/PLAY)

1.9Vp-p(20usec/div)

WF No. P9002-12 (REC/PLAY)

1.6Vp-p(1msec/div)

WF No. P9002-14 (REC/PLAY)

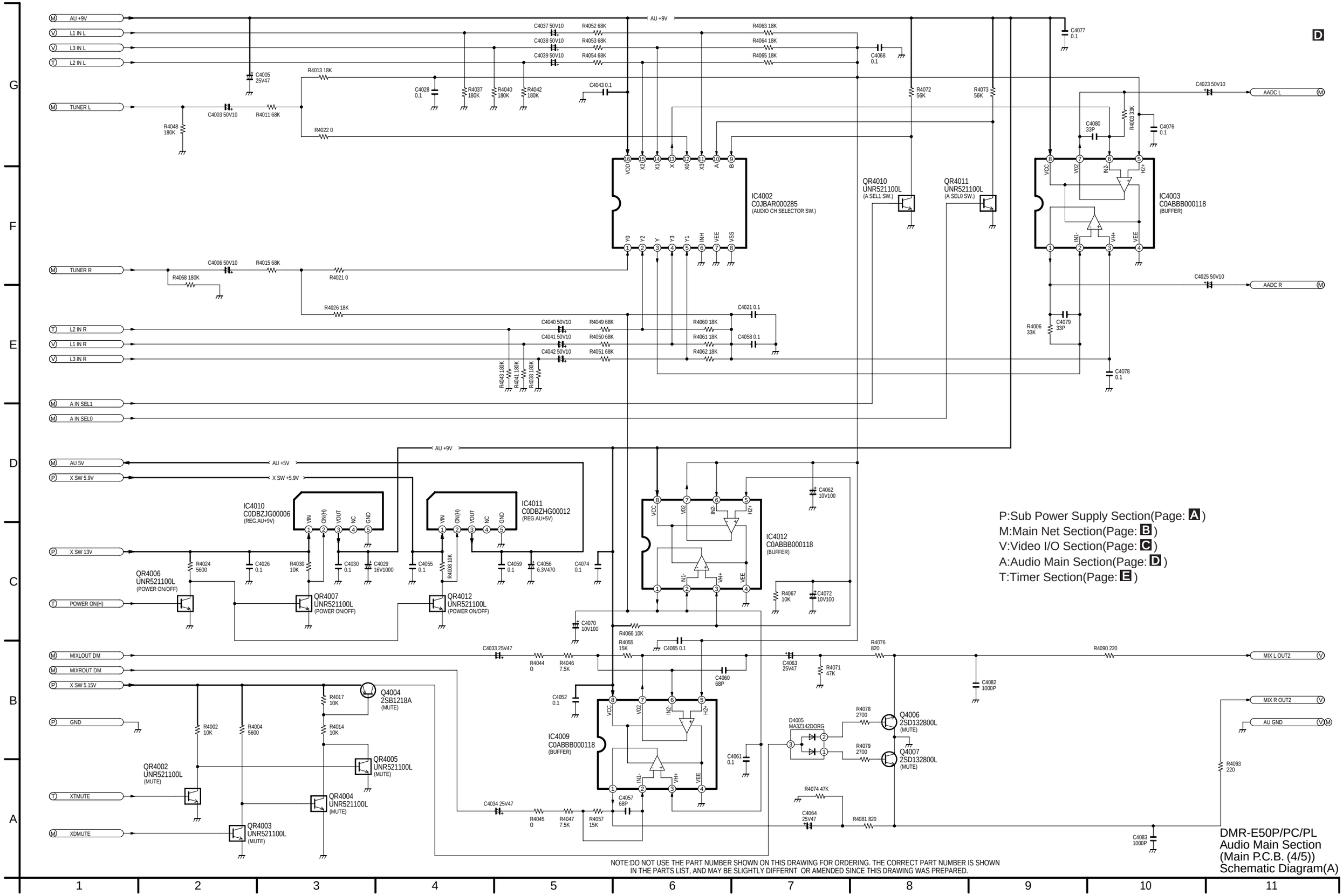
1.6Vp-p(1msec/div)

WF No. P9002-21 (REC/PLAY)

1.7Vp-p(1msec/div)

WF No. P9002-19 (REC/PLAY)

1.7Vp-p(1msec/div)


AU +9V
L1 IN L
L3 IN L
L2 IN L
TUNER L
C4005 25V47
R4013 18K
C4028 0.1
R4037 180K
R4040 180K
R4042 180K
C4037 50V10
C4038 50V10
C4039 50V10
R4052 68K
R4053 68K
R4054 68K
C4043 0.1
R4063 18K
R4064 18K
R4065 18K
C4068 0.1
C4077 0.1
R4072 56K
R4073 56K
C4023 50V10
AADC L
C4080 33P
R4003 33K
C4076 0.1
R4048 180K
C4003 50V10
R4011 68K
R4022 0
IC4002
C0JBAR000285
(AUDIO CH SELECTOR SW.)
VDD X2 X1 X X0 X3 A B
Y0 Y2 Y Y3 Y1 INH VEE VSS
QR4010
UNR521100L
(A SEL1 SW.)
QR4011
UNR521100L
(A SEL0 SW.)
IC4003
C0ABBB000118
(BUFFER)
VCC V02 IN2- H2+
IN1- VH+ VEE
TUNER R
C4006 50V10
R4015 68K
R4068 180K
R4021 0
C4025 50V10
AADC R
R4026 18K
C4021 0.1
L2 IN R
L1 IN R
L3 IN R
C4040 50V10
C4041 50V10
C4042 50V10
R4049 68K
R4050 68K
R4051 68K
R4060 18K
R4061 18K
R4062 18K
C4058 0.1
R4043 180K
R4041 180K
R4039 180K
R4006 33K
C4079 33P
C4078 0.1
A IN SEL1
A IN SEL0
AU +9V
AU 5V
AU +5V
X SW 5.9V
X SW +5.9V
IC4010
C0DBZJG00006
(REG.AU+9V)
IC4011
C0DBZHG00012
(REG.AU+5V)
VIN ON(H) VOUT NC GND
X SW 13V
R4024 5600
C4026 0.1
R4030 10K
C4030 0.1
C4029 16V1000
C4055 0.1
R4008 10K
C4059 0.1
C4056 6.3V470
C4074 0.1
QR4006
UNR521100L
(POWER ON/OFF)
QR4007
UNR521100L
(POWER ON/OFF)
QR4012
UNR521100L
(POWER ON/OFF)
POWER ON(H)
IC4012
C0ABBB000118
(BUFFER)
C4062 10V100
R4067 10K
C4072 10V100
C4070 10V100
R4066 10K
MIXLOUT DM
MIXROUT DM
X SW 5.15V
C4033 25V47
R4044 0
R4046 7.5K
R4055 15K
C4065 0.1
C4060 68P
C4063 25V47
R4071 47K
R4076 820
R4090 220
MIX L OUT2
C4082 1000P
C4052 0.1
IC4009
C0ABBB000118
(BUFFER)
R4017 10K
Q4004
2SB1218A
(MUTE)
R4002 10K
R4004 5600
R4014 10K
QR4005
UNR521100L
(MUTE)
QR4002
UNR521100L
(MUTE)
QR4004
UNR521100L
(MUTE)
QR4003
UNR521100L
(MUTE)
GND
XTMUTE
XDMUTE
D4005
MA3Z142DORG
R4078 2700
R4079 2700
Q4006
2SD132800L
(MUTE)
Q4007
2SD132800L
(MUTE)
C4061 0.1
R4074 47K
C4064 25V47
R4081 820
C4034 25V47
R4045 0
R4047 7.5K
R4057 15K
C4057 68P
MIX R OUT2
AU GND
R4093 220
C4083 1000P
P:Sub Power Supply Section(Page: A)
M:Main Net Section(Page: B)
V:Video I/O Section(Page: C)
A:Audio Main Section(Page: D)
T:Timer Section(Page: E)
NOTE:DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERNT OR AMENDED SINCE THIS DRAWING WAS PREPARED.
DMR-E50P/PC/PL
Audio Main Section
(Main P.C.B. (4/5))
Schematic Diagram(A)

:REC SIGNAL :PB SIGNAL

TU7401
U/V TUNER PACK
L OUT 27
R OUT 26
TUNER L
TUNER R

IC4002
(AUDIO CH SELECTOR SW)
12 TUNER L
1 TUNER R
11 L1 IN L
14 L3 IN L
4 L1 IN R
5 L3 IN R
15 L2 IN L
2 L2 IN R
B 9
A 10

QR4010
A.SEL1 SW
(L)OUT
QR4011
A.SEL0 SW
(L)OUT
A IN SEL1
A IN SEL0
PP9702 10 / P9002 10
PP9702 11 / P9002 11
FROM DIGITAL

JK3901
EXTERNAL A/V JACK
AUDIO IN
L L1 16
L L3 17
R L1 19
R L3 20
L1 IN L
L3 IN L
L1 IN R
L3 IN R

IC4003
(BUFFER)
AUDIO L 13
AUDIO R 3
6 7 2 1
A ADC L
A ADC R
PP9702 12 / P9002 12
PP9702 14 / P9002 14
TO DIGITAL

JK7001
FRONT A/V JACK
AUDIO IN
L/MONO 5
2
R 3
P7001 13 / P7501 13 L2 IN L
P7001 11 / P7501 11 L2 IN R

FROM TIMER
IC7501- 20
XTMUTE
XDMUTE
P9002 23 / PP9702 23
QR4002,4005
SWITCH
QR4003,4004
SWITCH
Q4004
MUTE
(H)OUT
D4005
Q4007
MUTE
Q4006
MUTE

IC4009
(BUFFER)
P9002 21 / PP9702 21 MIX L OUT DM
P9002 19 / PP9702 19 MIX R OUT DM
6 7 2 1
MIX L OUT2
MIX R OUT2

FROM DIGITAL
P9002 17 / PP9702 17 IECOUT

JK3902
A/V OUT REAR JACK
17 OUT2-L
20 OUT2-R
AUDIO

JK3903
DIGITAL AUDIO OUT
(PCM/BITSTREAM)
23 OPTICAL

DMR-E50P/PC/PL
Analog Audio Block Diagram

DN:Digital Net Section(Page: F)
AI:AV Input Section(Page: G)
EN:AV Encoder Section(Page: H)
AD:AV Decoder Section(Page: I)
S:System Control Section(Page: J)
G:Glue Section(Page: K)

IC3
MN677551NA
(AVDEC)

DMR-E50P/PC/PL
AV Decoder Section(Digital P.C.B.(4/6)) Schematic Diagram(AD)

DN:Digital Net Section(Page: F)
AI:AV Input Section(Page: G)
EN:AV Encoder Section(Page: H)
AD:AV Decoder Section(Page: I)
S:System Control Section(Page: J)
G:Glue Section(Page: K)

IC4
C3ABPG000063
(16bit/64M SDRAM)

IC2
C3ABPG000063
(16bit/64M SDRAM)

IC1
C1DB00000895
(PLL)

IC5
C0JBAR000332
(CLOCK OUT)

IC6
C0JBAB000474
(CLOCK OUT)

IC15
C0CBCBD00002
(REG.D+3.3V)

IC14
C0JBAF000206
(DUAL FLIP-FLOP)

IC10
C0FBBK000035
(AUDIO D/A CONVERTER)

IC13
C0JBAD000107
(XDMUTE OUT)

IC11
C0CBCBD00002
(REG.DAC+3.3V)

NOTE:DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST,AND MAY BE SLIGHTLY DIFFERNT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

REF.NO.50000 SERIES

DMR-E50P/PC/PL
AV Decoder Section(Digital P.C.B.(4/6)) Schematic Diagram(AD)

DN:Digital Net Section(Page: F)
AI:AV Input Section(Page: G)
EN:AV Encoder Section(Page: H)
AD:AV Decoder Section(Page: I)
S:System Control Section(Page: J)
G:Glue Section(Page: K)

DMR-E50P/PC/PL
AV Input Section(Digital P.C.B.(2/6)) Schematic Diagram(AI)

DN:Digital Net Section(Page: F)
AI:AV Input Section(Page: G)
EN:AV Encoder Section(Page: H)
AD:AV Decoder Section(Page: I)
S:System Control Section(Page: J)
G:Glue Section(Page: K)

IC3203
MN673744
(VAD CON)

DMR-E50P/PC/PL
AV Input Section(Digital P.C.B.(2/6)) Schematic Diagram(AI)

NOTE:DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM
FOR ORDERING.WHEN YOU ORDER A PART,PLEASE REFER TO PARTS LIST.

DMR-E50P/PC/PL
AV Input Section
(Digital P.C.B.(2/6))
Schematic Diagram(AI)

:REC SIGNAL

:PB SIGNAL

IC3005
(VIDEO DRIVER)

FROM DIGITAL BLOCK SECTION

P9001 22 | PP9701 22 — C OUT DM — Q3001 AMP — (3) CIN — 1.5-6M BPF — CTRAP

P9001 20 | PP9701 20 — Y OUT DM — Q3002 AMP — (5) YIN — 6M LPF — YTRAP

P9001 15 | PP9701 15 — GPY YOUT DM — Q3003 AMP — (8) PYIN — 12M LPF — PYTRAP

P9001 16 | PP9701 16 — BPB CBOUT DM — Q3007,3008 AMP — (12) PbIN — 6M LPF

P9001 18 | PP9701 18 — RPR CROUT DM — Q3009,3010 AMP — (14) PrIN — 6M LPF

6dB, 75Ω

MUTE1 (2), MUTE2 (15) — (VIDEO MUTE(L)) — FROM TIMER (IC7501- (8))

COUT (32) — CPN C OUT

MIXOUT (30), (29) — CPS V OUT

YOUT (25), (24) — CPN Y OUT

PYOUT (22), (21) — GPC Y OUT

PbOUT (19) — BPC B OUT

PrOUT (17) — RPC R OUT

JK3902
A/V OUT
JACK

(14) VIDEO2 LINE OUT

(3) Y

(4) C — S1/S2 OUT 2

JK3903
COMPONENT
VIDEO OUT

(20) Y(GREEN)

(19) PB (BLUE)

(18) PR (RED)

IC3003
(VIDEO AGC)

L1/L2/L3/DET OUT (29) — L123 SWIDE — TO TIMER IC7501- (3)

S1/S2 OUT (34)

TU7401
U/V TUNER PACK

VIDEO OUT (18) — Q7401 AMP — TU VIDEO IN — (3) TUNER VIDEO IN

JK3901
EXTERNAL A/V IN
JACK

L3 VIDEO IN (14) — JSB V IN — (12) VIDEO3 IN

L1 VIDEO IN (13) — LINE 1V IN — (5) VIDEO1 IN

L3 S-VIDEO IN — C (4) — MUSE C IN — (16) S3 DET, (17) C3 IN

Y (3) — MUSE Y IN — (14) Y3 IN

(6) — C/S DET3 — (13) C/S DET3

(9) S1 DET

L1 S-VIDEO IN — C (10) — CPN 1C IN — (10) C1 IN

Y (9) — CPN 1Y IN — (7) Y1 IN

(11) — C/S DET1 — (6) C/S DET1

JK7001
FRONT JACK

L2 VIDEO IN (7) — P7001 16 | P7501 16 — L2 IN CPS — (19) VIDEO2 IN

(23) S2 DET

L2 S-VIDEO IN — C (12) — P7001 18 | P7501 18 — L2 IN CPNC — (24) C2 IN

Y (11) — P7001 20 | P7501 20 — L2 IN CPNY — (21) Y2 IN

(13) — P7001 15 | P7501 15 — L2 C SDET — (20) C/S DET2

SLICER VIDEO (42) — Q3004-Q3006 AMP — Q3012,QR3011 EXT SYNC (H)OUT — EXT SYNC(H) — IC7501- (16) TO TIMER

IC3002
(DATA SLICE)

Q3015 AMP — (26) CVIN

X3001 14.3MHz — (19) SIN, (20) XOUT

SOUT (11) — CC DATA1 — PP9703 11 | P9003 11

CS (9) — XCC CS2 — PP9703 10 | P9003 10

SIN (12) — CC DATAO — PP9703 9 | P9003 9

SCLK (10) — CC SCLK — PP9703 8 | P9003 8

TO/FROM DIGITAL

COUT (38) — CPNCIN DM — PP9701 30 | P9001 30

Y/V OUT (44) — V YIN DM — PP9701 28 | P9001 28

CLAMP DC (47) — CLAMP DC — PP9701 25 | P9001 25

DMR-E50P/PC/PL
Analog Video Block Diagram

IC Pin Terminal Chart (TC 1 - TC 6)

TC	IC3203 / VAD CON		SIGNAL NAME	IC3202 / V-PROCESSOR	
	Port Name	Pin No		Pin No	Port Name
1	R656OUT0	141	R656ENC0	35	R656IN0
	R656OUT1	140	R656ENC1	34	R656IN1
	R656OUT2	139	R656ENC2	33	R656IN2
	R656OUT3	138	R656ENC3	32	R656IN3
	R656OUT4	135	R656ENC4	29	R656IN4
	R656OUT5	134	R656ENC5	28	R656IN5
	R656OUT6	133	R656ENC6	27	R656IN6
	R656OUT7	132	R656ENC7	26	R656IN7

TC	IC3402 / AV ENC		SIGNAL NAME	IC3406 / RTSC	
	Port Name	Pin No		Pin No	Port Name
2	CDO0	63	CDO0	16	EC1DT0
	CDO1	64	CDO1	17	EC1DT1
	CDO2	65	CDO2	18	EC1DT2
	CDO3	67	CDO3	19	EC1DT3
	CDO4	68	CDO4	20	EC1DT4
	CDO5	69	CDO5	21	EC1DT5
	CDO6	72	CDO6	22	EC1DT6
	CDO7	73	CDO7	23	EC1DT7

TC	IC3406 / RTSC		SIGNAL NAME	P3401 (DVD RAM)	
	Port Name	Pin No		Pin No	Port Name
3	S1DB0	122	RAMD0	24	DD0
	S1DB1	124	RAMD1	26	DD1
	S1DB2	127	RAMD2	28	DD2
	S1DB3	129	RAMD3	30	DD3
	S1DB4	135	RAMD4	32	DD4
	S1DB5	137	RAMD5	34	DD5
	S1DB6	140	RAMD6	36	DD6
	S1DB7	142	RAMD7	38	DD7
	S1DB8	141	RAMD8	37	DD8
	S1DB9	139	RAMD9	35	DD9
	S1DB10	136	RAMD10	33	DD10
	S1DB11	134	RAMD11	31	DD11
	S1DB12	128	RAMD12	29	DD12
	S1DB13	126	RAMD13	27	DD13
	S1DB14	123	RAMD14	25	DD14
	S1DB15	121	RAMD15	23	DD15

TC	IC3203/VAD CON		SIGNAL NAME	IC3201/SDRAM	
	Port Name	Pin No		Pin No	Port Name
4	M0DT0	63	DT0	2	DO0
	M0DT1	62	DT1	3	DO1
	M0DT2	60	DT2	5	DO2
	M0DT3	59	DT3	6	DO3
	M0DT4	57	DT4	8	DO4
	M0DT5	56	DT5	9	DO5
	M0DT6	54	DT6	11	DO6
	M0DT7	53	DT7	12	DO7
	M0DT8	50	DT8	39	DO8
	M0DT9	49	DT9	40	DO9
	M0DT10	47	DT10	42	DO10
	M0DT11	46	DT11	43	DO11
	M0DT12	44	DT12	45	DO12
	M0DT13	43	DT13	46	DO13
	M0DT14	41	DT14	48	DO14
	M0DT15	40	DT15	49	DO15
	M0AD0	83	AD0	21	A0
	M0AD1	82	AD1	22	A1
	M0AD2	80	AD2	23	A2
	M0AD3	79	AD3	24	A3
	M0AD4	76	AD4	27	A4
	M0AD5	75	AD5	28	A5
	M0AD6	73	AD6	29	A6
	M0AD7	72	AD7	30	A7
	M0AD8	70	AD8	31	A8
	M0AD9	69	AD9	32	A9
	M0AP	67	AD10	20	A10
	M0BA	66	AD11	19	A11

TC	IC3402/AV ENC		SIGNAL NAME	IC3401/SDRAM(32bit/64M)	
	Port Name	Pin No		Pin No	Port Name
5	MDQ0	124	MDQA0	2	DQ0
	MDQ1	125	MDQA1	4	DQ1
	MDQ2	127	MDQA2	5	DQ2
	MDQ3	128	MDQA3	7	DQ3
	MDQ4	130	MDQA4	8	DQ4
	MDQ5	131	MDQA5	10	DQ5
	MDQ6	133	MDQA6	11	DQ6
	MDQ7	134	MDQA7	13	DQ7
	MDQ8	137	MDQA8	74	DQ8
	MDQ9	138	MDQA9	76	DQ9
	MDQ10	140	MDQA10	77	DQ10
	MDQ11	141	MDQA11	79	DQ11
	MDQ12	143	MDQA12	80	DQ12
	MDQ13	144	MDQA13	82	DQ13
	MDQ14	146	MDQA14	83	DQ14
	MDQ15	147	MDQA15	85	DQ15
	MDQ16	150	MDQA16	31	DQ16
	MDQ17	151	MDQA17	33	DQ17
	MDQ18	153	MDQA18	34	DQ18
	MDQ19	154	MDQA19	36	DQ19
	MDQ20	158	MDQA20	37	DQ20
	MDQ21	159	MDQA21	39	DQ21
	MDQ22	161	MDQA22	40	DQ22
	MDQ23	162	MDQA23	42	DQ23
	MDQ24	165	MDQA24	45	DQ24
	MDQ25	166	MDQA25	47	DQ25
	MDQ26	168	MDQA26	48	DQ26
	MDQ27	169	MDQA27	50	DQ27
	MDQ28	186	MDQA28	51	DQ28
	MDQ29	187	MDQA29	53	DQ29
	MDQ30	190	MDQA30	54	DQ30
	MDQ31	191	MDQA31	56	DQ31
	MA0	193	MAA0	25	A0
	MA1	194	MAA1	26	A1
	MA2	196	MAA2	27	A2
	MA3	197	MAA3	60	A3
	MA4	200	MAA4	61	A4
	MA5	201	MAA5	62	A5
	MA6	203	MAA6	63	A6
	MA7	204	MAA7	64	A7
	MA8	206	MAA8	65	A8
	MA9	207	MAA9	66	A9
	MA10	2	MAA10	24	A10

TC	IC3406 / RTSC		SIGNAL NAME	IC3403,IC3404/SDRAM	
	Port Name	Pin No		Pin No	Port Name
6	MDQ0	144	MADQB0	2	DQ0
	MDQ1	146	MADQB1	4	DQ1
	MDQ2	148	MADQB2	5	DQ2
	MDQ3	151	MADQB3	7	DQ3
	MDQ4	155	MADQB4	8	DQ4
	MDQ5	157	MADQB5	10	DQ5
	MDQ6	159	MADQB6	11	DQ6
	MDQ7	161	MADQB7	13	DQ7
	MDQ8	162	MADQB8	42	DQ8
	MDQ9	160	MADQB9	44	DQ9
	MDQ10	158	MADQB10	45	DQ10
	MDQ11	156	MADQB11	47	DQ11
	MDQ12	154	MADQB12	48	DQ12
	MDQ13	150	MADQB13	50	DQ13
	MDQ14	147	MADQB14	51	DQ14
	MDQ15	145	MADQB15	53	DQ15

IC Pin Terminal Chart (TC 7, TC 8, TC 9, TC 15, TC 16, TC 21, TC 22, TC 23)

TC	IC3202/V-PROCESSOR		SIGNAL NAME	IC50003/AV DEC	
	Port Name	Pin No		Pin No	Port Name
7	R656OUT0	23	R656ENC0	138	VDIN0
	R656OUT1	22	R656ENC1	137	VDIN1
	R656OUT2	21	R656ENC2	136	VDIN2
	R656OUT3	20	R656ENC3	134	VDIN3
	R656OUT4	17	R656ENC4	133	VDIN4
	R656OUT5	16	R656ENC5	132	VDIN5
	R656OUT6	15	R656ENC6	130	VDIN6
	R656OUT7	14	R656ENC7	129	VDIN7

TC	IC50003/AV DEC		SIGNAL NAME	IC50002/SDRAM	
	Port Name	Pin No		Pin No	Port Name
8	MDQ0	17	DQ0	2	DQ0
	MDQ1	14	DQ1	4	DQ1
	MDQ2	11	DQ2	5	DQ2
	MDQ3	8	DQ3	7	DQ3
	MDQ4	6	DQ4	8	DQ4
	MDQ5	3	DQ5	10	DQ5
	MDQ6	207	DQ6	11	DQ6
	MDQ7	205	DQ7	13	DQ7
	MDQ8	206	DQ8	42	DQ8
	MDQ9	2	DQ9	44	DQ9
	MDQ10	4	DQ10	45	DQ10
	MDQ11	7	DQ11	47	DQ11
	MDQ12	9	DQ12	48	DQ12
	MDQ13	13	DQ13	50	DQ13
	MDQ14	16	DQ14	51	DQ14
	MDQ15	18	DQ15	53	DQ15
	MA0	183	A0	23	A0
	MA1	181	A1	24	A1
	MA2	178	A2	25	A2
	MA3	176	A3	26	A3
	MA4	177	A4	29	A4
	MA5	179	A5	30	A5
	MA6	182	A6	31	A6
	MA7	188	A7	32	A7
	MA8	191	A8	33	A8
	MA9	196	A9	34	A9
	MA10	189	A10	22	A10
	MA11	192	A11	35	A11

TC	IC50003/AV DEC		SIGNAL NAME	IC50004/SDRAM	
	Port Name	Pin No		Pin No	Port Name
9	MDQ16	171	DQ16	2	DQ0
	MDQ17	168	DQ17	4	DQ1
	MDQ18	166	DQ18	5	DQ2
	MDQ19	163	DQ19	7	DQ3
	MDQ20	160	DQ20	8	DQ4
	MDQ21	158	DQ21	10	DQ5
	MDQ22	154	DQ22	11	DQ6
	MDQ23	151	DQ23	13	DQ7
	MDQ24	150	DQ24	42	DQ8
	MDQ25	153	DQ25	44	DQ9
	MDQ26	155	DQ26	45	DQ10
	MDQ27	159	DQ27	47	DQ11
	MDQ28	162	DQ28	48	DQ12
	MDQ29	164	DQ29	50	DQ13
	MDQ30	167	DQ30	51	DQ14
	MDQ31	169	DQ31	53	DQ15
	MA0	183	A0	23	A0
	MA1	181	A1	24	A1
	MA2	178	A2	25	A2
	MA3	176	A3	26	A3
	MA4	177	A4	29	A4
	MA5	179	A5	30	A5
	MA6	182	A6	31	A6
	MA7	188	A7	32	A7
	MA8	191	A8	33	A8
	MA9	196	A9	34	A9
	MA10	189	A10	22	A10
	MA11	192	A11	35	A11

TC	IC6004 / MAIN CPU		SIGNAL NAME	IC6002 / W-MEMORY	
	Port Name	Pin No		Pin No	Port Name
15	MD0	35	MD0	2	DQ0
	MD1	36	MD1	4	DQ1
	MD2	37	MD2	5	DQ2
	MD3	38	MD3	7	DQ3
	MD4	39	MD4	8	DQ4
	MD5	40	MD5	10	DQ5
	MD6	41	MD6	11	DQ6
	MD7	42	MD7	13	DQ7
	MD8	46	MD8	42	DQ8
	MD9	47	MD9	44	DQ9
	MD10	48	MD10	45	DQ10
	MD11	49	MD11	47	DQ11
	MD12	50	MD12	48	DQ12
	MD13	51	MD13	50	DQ13
	MD14	52	MD14	51	DQ14
	MD15	53	MD15	53	DQ15
	MA0	5	MA0	23	A0
	MA1	6	MA1	24	A1
	MA2	7	MA2	25	A2
	MA3	8	MA3	26	A3
	MA4	9	MA4	29	A4
	MA5	10	MA5	30	A5
	MA6	11	MA6	31	A6
	MA7	12	MA7	32	A7
	MA8	13	MA8	33	A8
	MA9	14	MA9	34	A9
	MA10	15	MA10	22	A10
	MA11	16	MA11	35	A11
	MA12	17	MA12	36	NC
	MA13	18	MA13	21	A12
	MA14	19	MA14	20	A13

TC	IC3406 / RTSC		SIGNAL NAME	IC50003 / AV DEC	
	Port Name	Pin No		Pin No	Port Name
16	STD0	40	STD0	88	STD0
	STD1	39	STD1	87	STD1
	STD2	38	STD2	86	STD2
	STD3	37	STD3	85	STD3
	STD4	36	STD4	84	STD4
	STD5	35	STD5	83	STD5
	STD6	34	STD6	82	STD6
	STD7	33	STD7	81	STD7

TC	IC6701 / GLUE		SIGNAL NAME	IC6703 / DATA STRAGE	
	Port Name	Pin No		Pin No	Port Name
21	ECCD0	67	DE0	18	D0
	ECCD1	70	DE1	19	D1
	ECCD2	69	DE2	20	D2
	ECCD3	68	DE3	21	D3
	ECCD4	71	DE4	24	D4
	ECCD5	74	DE5	25	D5
	ECCD6	73	DE6	26	D6
	ECCD7	72	DE7	27	D7

TC	IC50003 / AV DEC		SIGNAL NAME	IC3203 / VAD CON	
	Port Name	Pin No		Pin No	Port Name
22	VDOUT0	140	R656DD0	155	R656IN0
	VDOUT1	141	R656DD1	154	R656IN1
	VDOUT2	142	R656DD2	153	R656IN2
	VDOUT3	143	R656DD3	152	R656IN3
	VDOUT4	145	R656DD4	151	R656IN4
	VDOUT5	146	R656DD5	150	R656IN5
	VDOUT6	147	R656DD6	149	R656IN6
	VDOUT7	149	R656DD7	148	R656IN7

TC	IC3202/V-PROCESSOR		SIGNAL NAME	IC3402/AV ENC	
	Port Name	Pin No		Pin No	Port Name
23	R656OUT0	23	R656ENC0	17	VIN0
	R656OUT1	22	R656ENC1	18	VIN1
	R656OUT2	21	R656ENC2	20	VIN2
	R656OUT3	20	R656ENC3	21	VIN3
	R656OUT4	17	R656ENC4	23	VIN4
	R656OUT5	16	R656ENC5	24	VIN5
	R656OUT6	15	R656ENC6	25	VIN6
	R656OUT7	14	R656ENC7	26	VIN7

SA0 - SA25 ADDRESS BUS LINE (TC20-1, TC12-3, TC17-1, TC18, TC19-1, TC24)

TC	20-1		12-3		17-1		18		19-1		24	
SIGNAL NAME	IC6004/MAIN CPU		IC3406 / RTSC		IC6701/GLUE		IC6007 / BUFFER		IC6006 / LOADER		IC50003 / AVDEC	
	Pin No	Port Name	Pin No	Port Name	Pin No	Port Name	Pin No	Port Name	Pin No	Port Name	Pin No	Port Name
SA0	186	SA0	-	-	-	-	-	-	-	-	-	-
SA1	187	SA1	-	-	-	-	26	4A4	11	A0	-	-
SA2	188	SA2	-	-	-	-	27	4A3	10	A1	-	-
SA3	189	SA3	-	-	-	-	29	4A2	9	A2	-	-
SA4	190	SA4	-	-	-	-	30	4A1	8	A3	-	-
SA5	191	SA5	-	-	-	-	32	3A4	7	A4	-	-
SA6	192	SA6	-	-	-	-	33	3A3	6	A5	-	-
SA7	193	SA7	-	-	-	-	35	3A2	5	A6	-	-
SA8	194	SA8	63	HMADR8	-	-	-	-	4	A7	41	HA8
SA9	195	SA9	71	HMADR9	-	-	-	-	42	A8	42	HA9
SA10	196	SA10	72	HMADR10	-	-	-	-	41	A9	43	HA10
SA11	197	SA11	73	HMADR11	-	-	-	-	40	A10	45	HA11
SA12	198	SA12	74	HMADR12	-	-	-	-	39	A11	46	HA12
SA13	199	SA13	76	HMADR13	-	-	-	-	38	A12	47	HA13
SA14	200	SA14	77	HMADR14	-	-	-	-	37	A13	49	HA14
SA15	201	SA15	78	HMADR15	-	-	-	-	36	A14	50	HA15
SA16	205	SA16	79	HMADR16	-	-	-	-	35	A15	51	HA16
SA17	206	SA17	80	HMADR17	-	-	-	-	34	A16	54	HA17
SA18	207	SA18	-	-	-	-	-	-	3	A17	-	-
SA19	208	SA19	-	-	-	-	-	-	-	-	-	-
SA20	209	SA20	-	-	-	-	-	-	-	-	-	-
SA21	210	SA21	-	-	-	-	-	-	-	-	-	-
SA22	211	SA22	-	-	174	ADR22	-	-	-	-	-	-
SA23	212	SA23	-	-	171	ADRH0	-	-	-	-	-	-
SA24	213	SA24	-	-	172	ADRH1	-	-	-	-	-	-
SA25	214	SA25	-	-	173	ADRH2	-	-	-	-	-	-

SD16 - SD31 DATA BUS LINE (TC20-2, TC17-2, TC19-2)

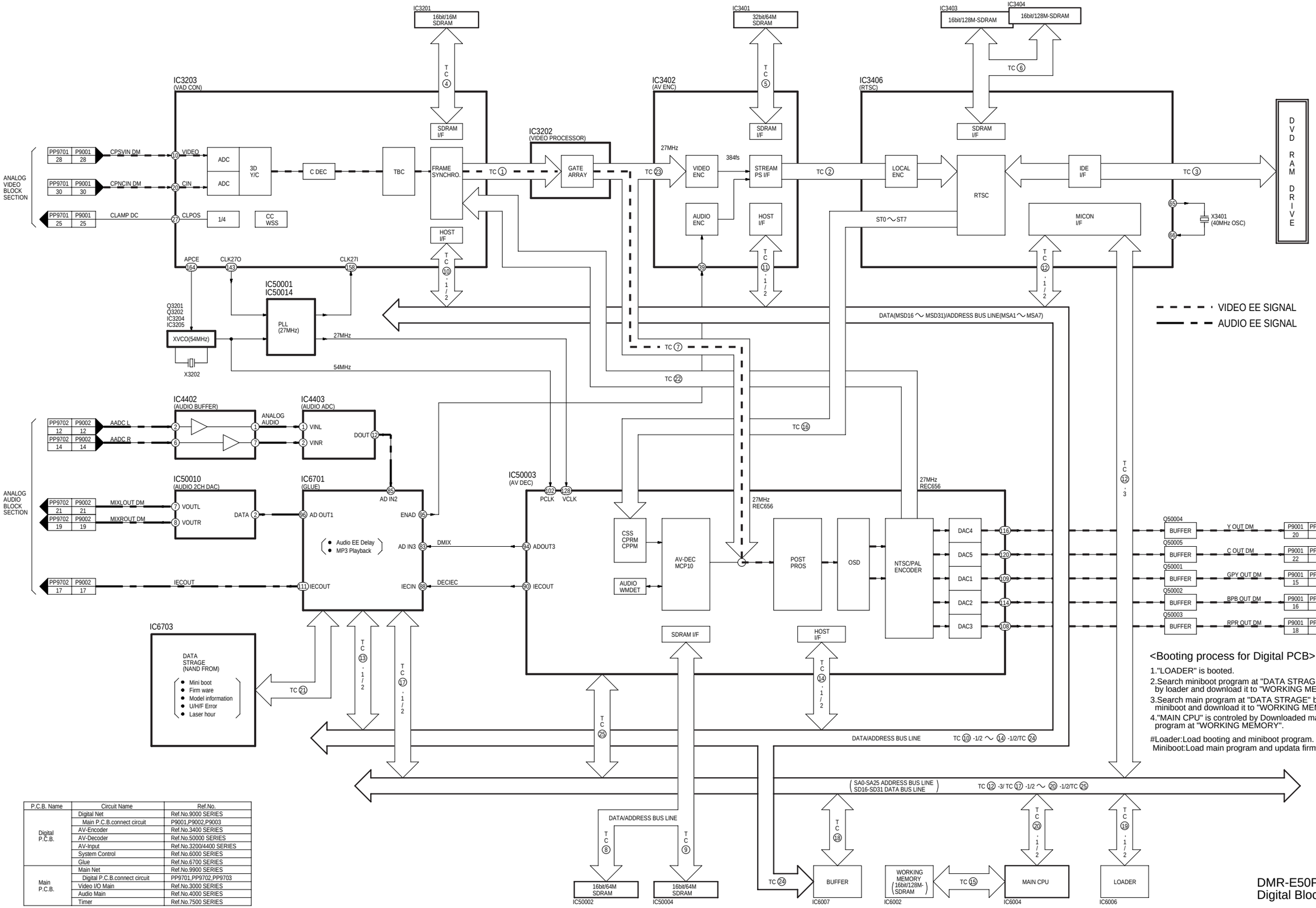
TC	20-2		17-2		19-2	
SIGNAL NAME	IC6004 / MAIN CPU		IC6701 / GLUE		IC6006 / LOADER	
	Pin No	Port Name	Pin No	Port Name	Pin No	Port Name
SD16	135	SD16	201	LDTI0	15	D0
SD17	136	SD17	200	LDTI1	17	D1
SD18	137	SD18	199	LDTI2	19	D2
SD19	138	SD19	202	LDTI3	21	D3
SD20	139	SD20	197	LDTI4	24	D4
SD21	140	SD21	196	LDTI5	26	D5
SD22	141	SD22	198	LDTI6	28	D6
SD23	142	SD23	195	LDTI7	30	D7
SD24	144	SD24	194	LDTI8	16	D8
SD25	145	SD25	192	LDTI9	18	D9
SD26	146	SD26	191	LDTI10	20	D10
SD27	147	SD27	189	LDTI11	22	D11
SD28	148	SD28	190	LDTI12	25	D12
SD29	149	SD29	188	LDTI13	27	D13
SD30	150	SD30	187	LDTI14	29	D14
SD31	151	SD31	185	LDTI15	31	D15

MSD16 - MSD31 DATA BUS LINE (TC10-1, TC13-1, TC14-1, TC11-1, TC12-1)

TC	10-1		13-1		14-1		11-1		12-1	
SIGNAL NAME	IC3203/VAD CON		IC6701/GLUE		IC50003/AVDEC		IC3402/ENC		IC3406/RTSC	
	Pin No	Port Name	Pin No	Port Name	Pin No	Port Name	Pin No	Port Name	Pin No	Port Name
MSD16	129	MDA0	12	LDEV0	55	HD0	81	HD0	105	HMDT16
MSD17	128	MDA1	13	LDEV1	56	HD1	82	HD1	104	HMDT17
MSD18	127	MDA2	11	LDEV2	57	HD2	85	HD2	102	HMDT18
MSD19	126	MDA3	10	LDEV3	59	HD3	86	HD3	101	HMDT19
MSD20	124	MDA4	7	LDEV4	60	HD4	88	HD4	100	HMDT20
MSD21	123	MDA5	8	LDEV5	61	HD5	89	HD5	98	HMDT21
MSD22	122	MDA6	9	LDEV6	63	HD6	90	HD6	97	HMDT22
MSD23	121	MDA7	14	LDEV7	64	HD7	92	HD7	96	HMDT23
MSD24	118	MDA8	2	LDEV8	65	HD8	93	HD8	94	HMDT24
MSD25	117	MDA9	4	LDEV9	67	HD9	94	HD9	93	HMDT25
MSD26	116	MDA10	3	LDEV10	68	HD10	97	HD10	92	HMDT26
MSD27	115	MDA11	208	LDEV11	70	HD11	98	HD11	87	HMDT27
MSD28	113	MDA12	207	LDEV12	72	HD12	99	HD12	86	HMDT28
MSD29	112	MDA13	6	LDEV13	73	HD13	101	HD13	85	HMDT29
MSD30	111	MDA14	205	LDEV14	74	HD14	102	HD14	83	HMDT30
MSD31	110	MDA15	203	LDEV15	76	HD15	103	HD15	82	HMDT31

MSA1 - MSA7 ADDRESS BUS LINE (TC23, TC10-2, TC13-2, TC14-2, TC11-2, 12-2)

TC	23		10-2		13-2		14-2		11-2		12-2	
SIGNAL NAME	IC6007/16bit BUFFER		IC3203/VAD CON		IC6701/GLUE		IC50003/AVDEC		IC3402/ENC		IC3406/RTSC	
	Pin No	Port Name	Pin No	Port Name	Pin No	Port Name	Pin No	Port Name	Pin No	Port Name	Pin No	Port Name
MSA1	23	4Y4	107	MAD0	167	ADRL1	32	HA1	106	HA0	55	HMADR1
MSA2	22	4Y3	106	MAD1	164	ADRL2	33	HA2	107	HA1	56	HMADR2
MSA3	20	4Y2	105	MAD2	165	ADRL3	35	HA3	108	HA2	57	HMADR3
MSA4	19	4Y1	104	MAD3	166	ADRL4	36	HA4	109	HA3	58	HMADR4
MSA5	17	3Y4	103	MAD4	163	ADRL5	37	HA5	105	HA4	60	HMADR5
MSA6	16	3Y3	102	MAD5	170	ADRL6	38	HA6	-	-	61	HMADR6
MSA7	14	3Y2	101	MAD6	168	ADRL7	40	HA7	-	-	62	HMADR7



<Booting process for Digital PCB>

1."LOADER" is booted.
2.Search miniboot program at "DATA STRAGE" by loader and download it to "WORKING MEMORY".
3.Search main program at "DATA STRAGE" by miniboot and download it to "WORKING MEMORY".
4."MAIN CPU" is controled by Downloaded main program at "WORKING MEMORY".

#Loader:Load booting and miniboot program.
Miniboot:Load main program and updata firmwave.

P.C.B. Name	Circuit Name	Ref.No.
Digital P.C.B.	Digital Net	Ref.No.9000 SERIES
	Main P.C.B.connect circuit	P9001,P9002,P9003
	AV-Encoder	Ref.No.3400 SERIES
	AV-Decoder	Ref.No.50000 SERIES
	AV-Input	Ref.No.3200/4400 SERIES
	System Control	Ref.No.6000 SERIES
	Glue	Ref.No.6700 SERIES
Main P.C.B.	Main Net	Ref.No.9900 SERIES
	Digital P.C.B.connect circuit	PP9701,PP9702,PP9703
	Video I/O Main	Ref.No.3000 SERIES
	Audio Main	Ref.No.4000 SERIES
	Timer	Ref.No.7500 SERIES

DMR-E50P/PC/PL
Digital Block Diagram

DIGITAL P.C.B.

Integrated Circuit

IC3201	B-5	F
IC3202	D-5	C
IC3203	E-3	C
IC3204	D-4	C
IC3205	E-4	C
IC3401	C-5	F
IC3402	E-3	F
IC3403	E-7	C
IC3404	C-7	C
IC3406	E-5	C
IC4402	E-2	F
IC4403	E-2	F
IC6001	C-7	F
IC6002	C-6	C
IC6004	C-6	F
IC6006	B-5	C
IC6007	F-4	C
IC6701	E-5	F
IC6702	D-4	F
IC6703	B-4	C
IC9001	E-7	F
IC50001	D-3	F
IC50002	D-2	C
IC50003	C-3	F
IC50004	C-3	C
IC50005	D-2	F
IC50006	D-2	F
IC50010	F-2	F
IC50011	E-2	F
IC50013	F-3	F
IC50014	E-4	C
IC50015	D-2	F

Transistor

Q3201	D-4	F
Q3202	D-4	F
Q6702	A-7	C
Q6703	A-6	C
Q6704	A-7	C
Q50001	A-2	F
Q50002	A-2	F
Q50003	A-2	F
Q50004	A-2	F
Q50005	A-2	F

Transistor-resistor

QR3401	E-7	F
QR3402	B-6	C
QR3403	B-6	C
QR9001	E-6	F
QR9005	F-6	F

Test Point

CK3401	E-3	F
CK3402	E-3	F
CKA1	A-3	F
CKA2	A-3	F
CKA3	A-3	F
CKA4	A-3	F
CKA5	A-3	F
CKA7	A-3	F
CKA9	A-2	F
CKA11	A-2	F
CKA13	A-2	F
CKA15	A-2	F
CKA16	A-2	F
CKA18	A-2	F
CKA20	A-2	F
CKA22	A-3	F
CKA24	B-3	F
CKA25	A-3	F
CKA26	A-3	F
CKA28	A-3	F
CKA30	B-4	F
CKB3	F-3	F
CKB8	F-7	F
CKB9	D-5	F
CKB10	D-5	F
CKB11	D-5	F
CKB12	F-2	F
CKB14	E-1	F
CKB17	F-2	F
CKB19	F-2	F

CKB20	F-2	F
CKB21	F-2	F
CKB22	F-2	F
CKB23	F-3	F
CKB26	F-3	F
CKB27	F-3	F
CKB29	F-3	F
CKB30	F-3	F
CKC19	A-5	F
CKC20	A-5	F
CKC22	A-5	F
CKC23	A-6	F
CKC25	A-5	F
CKC27	A-5	F
CKC29	B-6	F
CKC30	B-6	F
CKC32	B-6	F
CKC33	B-6	F
CKC35	A-5	F
CKC36	B-5	F
CKC37	B-5	F
CKC38	A-5	F
CKC39	B-5	F
CKC41	B-5	F
CKC42	B-5	F
CKC43	B-5	F
CKC44	B-5	F
CKC45	B-5	F
CKC46	B-5	F
CKC47	B-4	F
CKC48	B-4	F
CKC49	B-4	F
CKC51	B-4	F
CKC52	B-4	F
CKC53	B-4	F
CKC54	B-4	F
CKC55	B-4	F
CKC56	B-4	F
CKC57	B-4	F
CKC58	B-4	F
CKC59	A-4	F
CKC61	B-4	F
CKC62	A-4	F
CKC63	B-4	F
CKC64	A-4	F
CKC65	B-4	F
CKC66	A-4	F
CKC67	B-4	F
CKC68	B-4	F
CKC69	A-3	F
CKC88	A-6	F
CKC93	A-5	F
CKC94	A-5	F
CKC95	A-5	F
CKC96	A-5	F
CKC97	A-5	F
CKC98	A-5	F
CKC99	B-5	F
CKC100	B-5	F
CKC102	B-5	F
CKC103	B-5	F
CKC105	B-5	F
CKC106	B-5	F
CKC109	B-5	F
CKC110	B-5	F
CKC112	A-4	F
CKC113	B-7	F
CKC114	A-4	F
CKC115	B-7	F
CKC116	A-4	F
CKC117	B-7	F
CKC118	A-4	F
CKC119	B-7	F
CKC121	A-4	F
CKC122	D-2	F
CKC123	A-4	F
CKC124	D-2	F
CKC125	A-4	F
CKC126	D-2	F
CKC127	A-4	F
CKC128	D-2	F

CKC129	A-4	F
CKC131	D-2	F
CKC132	A-4	F
CKC133	A-6	F
CKC134	A-4	F
CKC135	B-6	F
CKC136	A-3	F
CKC137	A-3	F
CKC138	A-3	F
CKC139	A-3	F
CKD1	C-6	F
CKE1	F-6	F
CKE3	F-4	F
CKE4	F-7	F
CKE5	F-6	F
CKE6	E-7	F
CKE7	E-6	F
CKE8	E-6	F
CKE9	E-6	F
CKE10	E-6	F
CKE11	F-7	F
CKE16	F-4	F
CKE18	F-4	F
CKE19	F-4	F
CKE20	E-7	F
CKE21	F-6	F
CKE22	F-4	F
CKE23	F-5	F
CKE24	F-4	F
CKE25	F-7	F
CKE26	F-7	F
CKE27	F-5	F
CKE28	F-6	F
CKE29	F-6	F
CKE30	F-6	F
CKF1	F-4	F
CKF10	E-7	F
CKF12	C-6	F
CKF14	D-7	F
CKF16	D-6	F
CKF18	D-6	F
CKF20	E-6	F
CKF23	E-6	F
CKF24	D-6	F
CKF25	E-6	F
CKF26	D-6	F
CKF28	E-6	F
CKF29	E-6	F
CKF3	E-7	F
CKF30	E-6	F
CKF31	E-6	F
CKF32	E-6	F
CKF33	E-6	F
CKF34	E-6	F
CKF35	E-6	F
CKF36	E-6	F
CKF37	E-6	F
CKF38	D-5	F
CKF4	C-6	F
CKF5	E-7	F
CKF6	C-6	F
CKF8	C-6	F
CL3201	C-4	F
CL3202	C-6	F
CL3203	A-3	F
CL3204	A-3	F
CL3205	D-5	F
CL6001	B-6	F
CL6003	C-6	F
CL6004	C-6	F
CL6701	F-5	F
CL6702	F-5	F
CL6703	F-5	F
CL6704	F-5	F
CL6705	F-5	F
CL6706	F-5	F
CL6707	F-5	F
CL6708	F-5	F
CL6783	E-5	F
CL6784	E-5	F

CL6785	E-5	F
CL6786	E-5	F
CL6787	E-4	F
CL6788	E-4	F
CL6789	E-4	F
CL6790	E-4	F
CL6791	E-4	F
CL6792	E-4	F
CL6793	E-4	F
CL6795	E-4	F
CL6796	E-4	F
CL6797	E-5	F
CL6798	C-1	F
CL6800	C-1	F
CL6802	D-2	F
CL6803	E-2	F
CL6804	B-1	F
CL6805	C-1	F
CL6806	E-2	F
CL6811	E-5	F
CL6812	F-4	F
CL6813	F-4	F
CL6814	F-4	F
CL6815	F-4	F
CL6816	E-4	F
CL6817	E-4	F
CL9002	E-5	F
CL9003	E-5	F
CL9004	D-5	F
CL9005	D-5	F
CL9006	E-5	F
CL9007	D-5	F
CL9008	D-5	F
CL9009	D-5	F
CL50001	C-1	F
CL50002	C-1	F
CL50003	B-1	F
CL50004	B-1	F
CL50005	B-1	F
CL50006	B-2	F
CL50007	B-2	F
CL50008	D-2	F
TL6001	C-7	F
TL6002	C-7	F
TL6003	C-7	F
TL6004	B-7	F
TL6005	C-7	F
TL6006	C-7	F
TL6701	D-5	F

Connector

P3401	D-6	F
P6001	C-6	F
P9001	F-3	C
P9002	A-3	C
P9003	A-5	C

Diode

D3201	E-2	C
D3202	E-2	C
D3203	D-4	C
D3204	D-4	C
D9001	F-3	F

Crystal Osillator

X3202	D-4	C
X3401	E-4	C
X6001	B-6	F

Coil

LB3201	C-4	C
LB3202	B-4	F
LB3203	E-2	C
LB3204	B-5	F
LB3205	C-4	F
LB3401	C-4	F
LB3402	D-4	F
LB4402	E-1	F
LB4403	E-2	F
LB9001	F-4	F
LB9003	F-3	F
LB9005	B-3	C
LB9006	F-2	F
LB9009	B-3	C
LB9012	A-4	C

LB9013	F-3	C
LB9014	F-3	C
LB9015	F-3	C
LB9016	F-4	C
LB9020	F-2	F
LB9021	F-2	F
LB9038	F-2	F
LB50001	E-3	F
LB50003	D-2	F
LB50004	F-2	F
LB50005	E-1	C
LB50006	F-3	F

Filter

FL3201	D-5	C
FL3205	E-3	C
FL3206	E-3	C
FL3207	E-2	C
FL3208	E-3	C
FL3209	D-3	C
FL3210	C-5	C
FL3211	C-4	C
FL3212	D-3	C
FL3213	E-4	C
FL3216	D-3	C
FL3218	E-2	C
FL3220	D-3	C
FL3225	D-2	C
FL3401	C-4	F
FL3402	D-4	F
FL3403	E-4	F
FL3404	E-3	F
FL3405	E-3	F
FL3406	E-3	F
FL3409	E-4	F
FL3410	E-4	F
FL3411	E-4	F
FL3412	F-6	C
FL3413	D-6	C
FL3414	B-7	C
FL3415	B-6	C
FL3416	F-6	C
FL3417	F-5	C
FL3418	D-4	C
FL3419	D-5	C
FL3421	E-4	F
FL3422	F-6	C
FL3425	F-6	C
FL3428	E-3	F
FL4401	E-2	F
FL6001	D-6	C
FL6002	D-5	C
FL6003	C-7	F
FL6004	C-7	F
FL6005	C-6	F
FL6006	C-7	F
FL6009	B-6	F
FL6010	B-6	C
FL6011	E-4	C
FL6012	B-6	F
FL6013	B-7	F
FL6701	E-4	F
FL6702	A-4	C
FL6703	F-5	F
FL9004	B-3	C
FL9012	F-4	F
FL9013	F-3	F
FL9016	F-2	F
FL9020	A-4	C
FL9022	B-3	C
FL50001	D-3	F
FL50002	D-3	F
FL50005	D-2	C
FL50006	E-2	C
FL50007	D-3	F
FL50008	D-4	C
FL50009	D-2	C
FL50010	B-4	F
FL50011	D-3	F
FL50012	D-3	F
FL50013	D-1	F
FL50014	D-1	F

FL50016	D-2	F
FL50017	B-2	F
FL50018	E-2	C
FL50019	A-3	F
FL50020	A-3	F
FL50021	F-2	F
FL50023	B-4	F
FL50025	D-3	F
FL50028	D-4	C

Capacitor

C3201	C-5	C
C3203	F-4	C
C3207	D-4	C
C3211	E-2	C
C3213	E-2	C
C3216	E-3	C
C3217	E-2	C
C3218	E-2	C
C3219	E-2	C
C3220	E-2	C
C3221	E-2	C
C3222	E-2	C
C3223	E-2	C
C3224	E-2	C
C3225	E-2	C
C3226	D-4	F
C3227	C-4	C
C3229	D-4	C
C3230	D-4	C
C3231	D-4	C
C4402	E-2	F
C4403	C-2	C
C4406	B-1	C
C4407	E-1	F
C4408	B-2	C
C4409	E-1	F
C4410	D-1	F
C4411	D-2	F
C4412	B-2	C
C4413	B-3	C
C4414	B-2	C
C4415	B-1	C
C4416	D-1	F
C4417	E-1	F
C4418	E-1	F
C4419	E-2	F
C6001	C-7	F
C9001	B-3	C
C9003	C-3	C
C9004	E-7	F
C9005	C-4	C
C9007	E-7	F
C9011	C-3	C
C9013	B-3	C
C9014	F-3	C
C9015	F-3	C
C50007	A-3	F
C50008	E-2	C
C50009	A-3	F
C50010	E-1	C
C50013	F-2	F
C50014	D-2	F
C50015	C-2	C
C50016	F-2	F
C50018	B-2	C
C50025	E-2	F
C50026	B-2	C
C50027	B-2	C
C50028	E-2	F

Resistor

R3202	E-4	C
R3204	E-3	C
R3205	E-3	C
R3206	D-4	C
R3211	E-3	C
R3212	E-3	C
R3216	E-3	C
R3217	D-4	C
R3218	D-3	C
R3219	D-4	F
R3220	D-4	F

R3221	D-4	F
R3222	D-4	F
R3223	D-4	F
R3224	D-4	F
R3226	D-2	C
R3232	D-3	C
R3233	E-3	C
R3237	E-4	C
R3238	E-4	C
R3239	D-4	C
R3240	D-4	C
R3241	D-4	C
R3242	D-4	C
R3401	E-4	F
R3403	E-3	F
R3406	F-3	F
R3407	E-6	F
R3408	E-7	F
R3409	D-7	F
R3410	E-6	F
R3411	E-7	F
R3412	E-6	F
R3413	B-7	C
R3414	B-7	C
R3415	D-5	F
R3416	D-4	F
R3423	E-4	F
R3424	F-5	C
R3425	E-3	F
R3426	F-5	C
R3427	E-3	F
R4403	F-2	F
R4404	F-2	F
R4405	E-1	F
R4406	F-2	F
R4407	E-2	F
R4408	E-2	F
R4411	D-2	F
R4412	D-2	F
R4413	E-2	F
R4414	E-2	F
R4415	E-2	F
R6001	D-7	F
R6003	C-6	F
R6004	C-5	F
R6005	B-6	F
R6007	C-7	F
R6008	C-6	F
R6009	C-6	F
R6010	C-5	F
R6011	B-6	F
R6013	B-6	F
R6014	B-6	F
R6015	B-6	C
R6016	B-6	C
R6017	E-4	C
R6019	C-7	F
R6020	C-6	F
R6021	B-5	F
R6022	B-6	F
R6024	C-4	C
R6701	D-5	F
R6702	D-5	F
R6704	D-5	F
R6705	D-5	F
R6706	E-4	F
R6707	E-4	F
R6708	E-4	F
R6709	E-6	F
R6710	E-6	F
R6711	E-4	F
R6712	E-4	F
R6713	E-6	F
R6714	E-4	F
R6715	E-4	F
R6716	E-4	F
R6717	E-4	F

R6718	D-5	F
R6719	E-6	F
R6720	E-4	F
R6721	E-4	F
R6722	C-4	C
R6723	C-5	C
R6724	C-4	C
R6728	F-4	F
R6730	E-4	F
R6739	E-6	F
R6741	E-4	F
R6742	E-4	F
R6745	D-5	F
R6746	E-4	F
R6748	E-6	F
R6759	F-6	F
R6761	F-4	F
R9012	E-7	F
R9015	F-3	F
R50001	C-4	F
R50002	D-2	F
R50003	D-2	F
R50004	D-2	F
R50005	D-3	F
R50006	B-1	F
R50007	C-1	F
R50008	C-1	F
R50009	C-1	F
R50010	B-1	F
R50012	E-2	C
R50013	E-2	C
R50014	D-2	F
R50015	A-3	F
R50016	D-3	F
R50017	D-2	F
R50018	D-2	F
R50021	D-2	F
R50022	A-2	F
R50023	A-2	F
R50024	A-3	F
R50025	A-3	F
R50026	A-2	F
R50027	A-2	F
R50028	A-2	F
R50030	A-2	F
R50031	A-2	F
R50032	A-2	F
R50033	F-2	F
R50034	A-2	F
R50035	A-2	F
R50036	A-2	F
R50037	B-1	F
R50038	A-2	F
R50039	A-2	F
R50040	A-2	F
R50041	E-4	C
R50042	B-2	F
R50043	A-3	F
R50044	F-2	F
R50045	F-2	F
R50046	F-2	F
R50047	F-2	F
R50048	A-3	F
R50049	A-3	F
R50052	D-2	F
R50053	D-3	F
R50054	D-3	F
R50055	D-2	F
R50058	E-4	C
R50060	E-4	C
RA3201	B-4	F
RA3202	B-4	F
RA3203	C-4	F
RA3204	C-4	F
RA3205	C-5	F
RA3206	C-5	F
RA3207	B-5	F
RA3208	B-5	F
RA3209	D-2	C
RA3210	D-2	C
RA3212	C-5	C
RA3213	C-5	C
RA3214	C-4	C

RA3401	D-4	F
RA3402	D-4	F
RA3403	D-5	F
RA3404	D-5	F
RA3405	D-5	F
RA3406	D-5	F
RA3407	C-4	F
RA3408	C-4	F
RA3409	C-5	F
RA3410	C-5	F
RA3411	C-5	F
RA3413	E-6	C
RA3414	E-6	C
RA3415	D-6	C
RA3416	D-6	C
RA3419	E-6	C
RA3420	D-6	C
RA3421	D-6	C
RA3422	D-6	C
RA3423	D-5	C
RA3424	D-6	C
RA3425	F-5	C
RA3426	F-5	C
RA3433	D-5	C
RA3435	F-3	F
RA3436	F-3	F
RA3439	D-5	C
RA3440	F-6	C
RA3441	E-6	C
RA50009	C-2	C
RA50010	C-2	C
RA50011	D-3	F
RA50012	D-3	F
RA50013	C-4	C
RA50014	C-3	C
RA50015	D-3	C
RA50016	D-3	C
RA50017	D-3	F
RA50018	C-4	F
RA50019	C-4	F
RA50020	C-4	F
RA50021	C-4	F
RA50022	B-4	F
RA50023	B-4	F
RA50024	A-3	F
RA50025	A-3	F
RA50026	C-1	F
RA50027	C-1	F
RA50028	C-1	F
RA50029	C-1	F
RX6001	C-6	F
RX6002	C-6	F
RX6003	C-6	F
RX6004	C-6	F
RX6005	C-6	F
RX6006	C-6	F
RX6007	C-6	F
RX6008	B-6	F
RX6009	D-6	C
RX6010	D-5	C
RX6011	C-6	C
RX6012	D-5	C
RX6013	C-5	F
RX6014	B-6	F
RX6015	C-5	F
RX6016	C-6	F
RX6017	B-5	F
RX6018	C-6	C
RX6019	B-6	F
RX6020	C-5	C
RX6021	B-6	F
RX6022	C-5	C
RX6025	B-6	F
RX6026	C-6	C
RX6027	B-6	F
RX6030	C-6	C
RX6031	C-5	C
RX6032	B-6	F
RX6033	B-6	F
RX6034	B-7	F
RX6035	B-7	F

RX6036	B-6	F
RX6037	B-7	F
RX6038	B-7	F
RX6039	B-6	F
RX6040	B-6	F
RX6041	B-6	C
RX6042	B-6	C
RX6043	B-6	C
RX6044	B-6	C
RX6045	E-4	C
RX6046	F-4	C
RX6047	F-4	C
RX6048	F-4	C
RX6701	D-5	F
RX6702	D-5	F
RX6703	A-6	C
RX6704	B-6	C
RX6705	D-5	F
RX6706	E-5	F
RX6707	D-5	F
RX6708	D-5	F
RX6709	E-7	F
RX6710	E-6	F
RX6711	E-5	F
RX6712	D-5	F
RX6713	E-5	F
RX6714	E-4	F
RX6715	E-6	F
RX6716	E-6	F
RX6717	E-6	F
RX6718	E-6	F
RX6719	E-6	F
RX6720	E-4	F
RX6721	E-4	F
RX6722	E-6	F
RX6723	E-6	F
RX6724	F-4	F
RX6725	F-4	F
RX6726	F-6	F
RX6727	F-6	F
RX6728	F-6	F
RX6729	F-6	F
RX6730	F-4	F
RX6731	F-4	F
RX6732	F-5	F
RX6733	F-6	F
RX6735	F-5	F
RX6736	F-6	F
RX6737	F-6	F
RX6738	F-6	F
RX6739	F-6	F
RX6740	F-6	F
RX6741	F-5	F
RX6742	F-5	F
RX6743	F-5	F
RX6744	F-5	F
RX6745	F-5	F
RX6746	E-5	F
RX6747	F-7	F
RX6748	F-7	F
RX6749	E-6	F

ADDRESS INFORMATION
C……COMPONENT SIDE
F……FOIL SIDE